XR-C543SP

SERVICE MANUAL

East European Model

Refer to RM-X2S/X3S SERVICE MANUAL (9-960-039-□□) issued previously for information of remote commander (RM-X2S) supplied with this set.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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Model Name Using Similar Mechanism	XR-C553SP
Tape Transport Mechanism Type	MG-52A-135

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08% (WRMS)
Frequency response	30 – 20,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	67 dB	61 dB
TYPE I	64 dB	58 dB

Tuner section

*FM**

Turning range	65.0 – 74.0 MHz (at 30 kHz step) 87.5 – 108.0 MHz (at 50 kHz step)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

* There are the numerical values mesured at 87.5 – 108.0 MHz.

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 281 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 50 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	35 W × 4 (at 4 ohms)

General

Outputs	Power amplifier control lead/Power aerial control lead/Telephone mute control lead Line out (2)
Tone controls	Bass ± 8 dB at 100 Hz Treble ± 8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 183 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 164 mm (w/h/d)
Mass	Approx. 1.6 kg
Supplied accessories	Parts for installation and connections (1 set) Rotary commander RM-X2S

Design and specifications are subject to change without notice.

FM/MW/LW CASSETTE CAR STEREO

MICROFILM

SONY®

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SERVICING NOTES

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Discard used batteries according to the manufacturer's instructions.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.
Benytt samme batteritype eller en tilsvarende type
anbefalt av apparatfabrikanten.
Brukte batterier kasseres i henhold til fabrikantens
instruksjoner.

VARNING

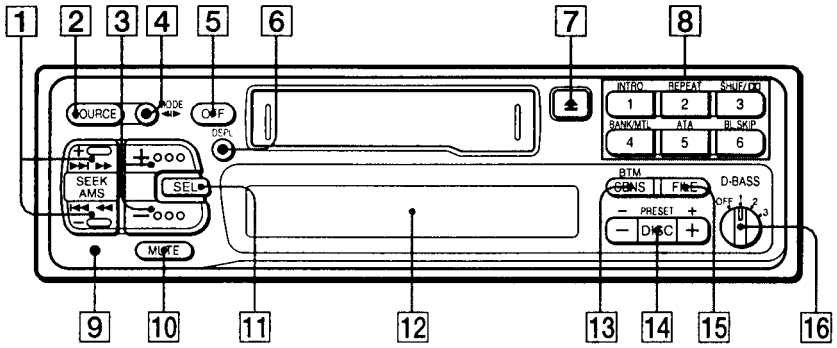
Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en likvärdig typ som
rekommenderas av apparattillverkaren.
Kassera använt batteri enligt gällande föreskrifter.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

This section is extracted from instruction manual.

Location of controls



Refer to the pages for further details.

1 **SEEK/AMS button 4, 5, 6, 7, 10, 11, 13**

2 **SOURCE button (TAPE/TUNER/CD/MD) 4, 6, 10, 12**

3 **⊕⊖ (volume/bass/treble/balance/ fader control) button 7, 8, 9, 12**

4 **MODE (◄I►) button**
During tuner reception:
BAND select 6

During Tape playback:
Transport direction change 4

During CD/MD playback:
CD/MD Changer select 10

5 **OFF button 4**

6 **DSPL (display mode change) button 5, 7, 10, 12**

7 **⏏ (eject) button 4**

8 **During radio reception:**
Preset number buttons 6

During tape/CD/MD playback:
① **INTRO button 5, 11**
② **REPEAT button 5, 11**
③ **SHUF DD (Shuffle/Dolby B NR) button 5, 11**
④ **BANK/MTL (Bank/Metal) button 5**
⑤ **ATA (Automatic Tuner Activation) button 5**
⑥ **BL.SKIP (Blank Skip) button 5**

9 **Reset button 4**
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

10 **MUTE button 9**

11 **SEL (Control mode select) button 4, 8, 9, 10, 12, 13**

12 **Display window**

13 **SENS/BTM (Sensitivity adjust/Best tuning memory) button 6, 7**

14 **PRESET/DISC button**
During tuner reception:
Preset station select 6

During CD/MD playback:
Disc select 11

15 **FILE button 7, 8, 12, 13**

16 **D-BASS control 9**

Installation Montaż Инсталиране Üzembehelyezés Установка

Precautions

- Choose the installation location carefully so that the unit will not hamper the driver during driving.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

Zasady bezpieczeństwa

- Miejsce do wmontowania radia wybrać z namysłem. Sprzęt nie może bowiem przeszkadzać kierowcy podczas jazdy.
- Nie należy umieszczać sprzętu w miejscach narażonych na działanie wysokich temperatur, jak na przykład bezpośrednich promieni słonecznych lub gorącego powietrza z ogrzewania samochodu lub w miejscach silnie zakurzonych, silnie zabrudzonych lub narażonych na silne wstrząsy.
- Dla zapewnienia bezpiecznej i prawidłowej instalacji stosować wyłącznie załączone części.

Wymierzenie kąta montażowego

Kąt montażowy nie powinien wynosić mniej niż 20°.

Мерки за безопасност

- Изберете внимателно мястото за инсталиране, така че апаратът да не пречи на водача по време на управление на автомобила.
- Избягвайте инсталиране на апарата там, където той ще бъде изложен на високи температури, например на директна слънчева светлина или на горещ въздух от нагревател, или където ще е изложен на прах, замърсяване или силни вибрации.
- Използувайте само доставяните с апарата детайли за монтиране за сигурно и безопасно инсталиране.

Настройка на ъгъла за монтаж

Настройте ъгъла за монтаж да бъде по-малък от 20° градуса.

Biztonsági előírások

- Kérjük gondosan válassza ki a készülék helyét, úgy, hogy az ne akadályozza a vezetőt vezetés közben.
- Kérjük, olyan helyen helyezze el a készüléket, ahol nincs kitéve magas hőmérsékletnek, tehát közvetlen napfénynek, vagy a fűtőegységből kiáradó forró levegőnek és ahol nincs kitéve pornak, ill. erős rázkódásnak.
- A biztonságos üzembehelyezés érdekében kérjük, hogy csak a készülékkel szállított szerelő-készletet használja.

A beszerelési szög beállítása

A készüléket max. 20°-os döntéssel szerelje be.

Меры предосторожности

- Выбирайте место установки таким образом, чтобы прибор не препятствовал водителю во время управления автомобилем.
- Предотвращайте установку прибора там, где он может быть подвержен высоким температурам, например, от прямого солнечного света или горячего воздуха из печки, или там, где возможны воздействия пыли, влаги или сильной вибрации.
- Для безопасной установки используйте только входящее в комплект монтажное оборудование.

Подстройка угла монтажа

Угол монтажа выберите меньшим, чем 20°.

Mounting Example

Installation in the dashboard

Przykład montażu

Instalacja na tablicy rozdzielczej

Пример за монтиране

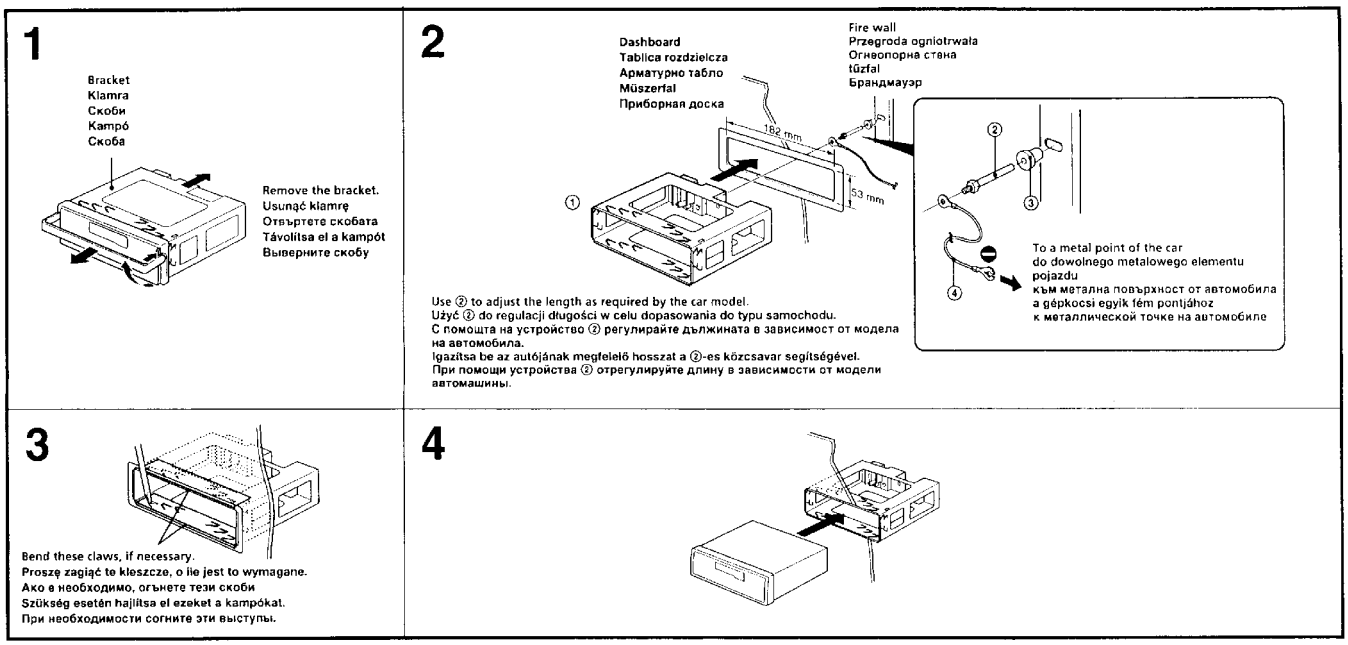
Инсталиране в арматурното табло

Szerelési példa

A készülék beszerelése a műszerfalba

Пример монтажа

Установка в приборной доске



Note for Connecting

If there is alternator noise (a whining sound when raising engine speed), earth the bracket ① by connecting it to a metal point of the car with the supplied chassis earth cord ④. Connect the earth cord to the bracket with part ② as shown in the step 2.

Uwagi dotyczące podłączenia

Przy wystąpieniu szmerów pochodzących z prądnicy (wysokie tony przy zwiększonych obrotach silnika), należy uziemić wspornik oznaczony ① przez podłączenie do metalowej części pojazdu przy pomocy dostarczonego kabla uziemiającego karoserię ④. Kabel uziemiający proszę podłączyć do wspornika częścią oznaczoną na rysunku cyfrą ②, jak zilustrowano w etapie 2.

Забележка по свързването

В случай, че се появи шум от алтернатора (свистене при повишаване на оборотите), заземете конзолата ① като я свържете към метална повърхност от автомобила с помощта на доставяния заземяващ кабел ④. Свържете заземяващия кабел към конзолата с помощта на детайл ② по начина, показан в стъпка 2.

Tudnivaló a csatlakoztatásról

Ha generátor zajt hall (a motor fordulatszámának növelése közben fellépő sivító hang), földelje le az ① tartókeretet - csatlakoztassa a mellékelt ④ alváz földelővezetéket a gépkocsi egyik fém pontjához. A földelővezetéket a 2. lépésben leírtak szerint a ② elem segítségével rögzítse a tartókerethez.

Примечание по подключению

Если генератор издает шум (воющий звук при наборе скорости), заземлите скобу ①, соединив ее металлической точкой на автомобиле с помощью входящего в комплект заземляющего провода ④. Соедините заземляющий провод со скобой с помощью части ② как показано в шаге 2.

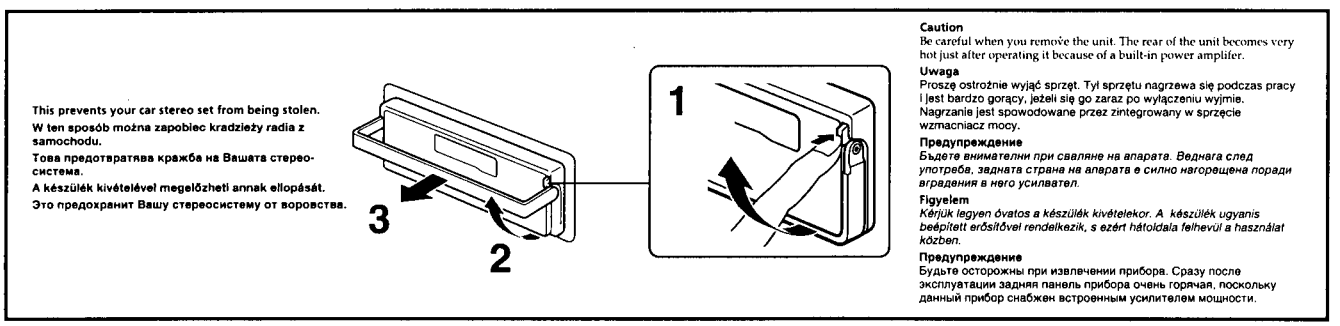
Removing the Unit

Wyjmowanie sprzętu

Сваляне на апарата

A készülék kivétele

Извлечение прибора


This prevents your car stereo set from being stolen.
W ten sposób można zapobiec kradzieży radia z samochodu.
Това предотвратява кражба на Вашата стерео-система.
A készülék kivételével megelőzheti annak ellopását.
Это предохранит Вашу стереосистему от воровства.
3
2
1

Caution
Be careful when you remove the unit. The rear of the unit becomes very hot just after operating it because of a built-in power amplifier.

Uwaga
Proszę ostrożnie wyjąć sprzęt. Tył sprzętu nagrzewa się podczas pracy i jest bardzo gorący, jeżeli się go zaraz po wyłączeniu wyjmie. Nagrzanie jest spowodowane przez zintegrowany w sprzęcie wzmacniacz mocy.

Предупреждение
Бъдете внимателни при сваляне на апарата. Веднага след употреба, задната страна на апарата е силно нагорещена поради вградения в него усилвател.

Figyelem
Kérjük legyen óvatos a készülék kivételekor. A készülék ugyanis beépített erősítővel rendelkezik, s ezért hátoldala felhevül a használat közben.

Предупреждение
Будьте осторожны при извлечении прибора. Сразу после эксплуатации задняя панель прибора очень горячая, поскольку данный прибор снабжен встроенным усилителем мощности.

Connections

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all earth wires to a common earth point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating.
  If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating.
  If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery.
  If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

Reset button

When the installation and connections are complete, be sure to press the reset button with a ballpoint pen etc.

Notes on the control leads

- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation) Function.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Wykonanie podłączeń

Zasady bezpieczeństwa

- Niniejszy sprzęt jest przeznaczony wyłącznie do pracy przy zasilaniu prądem stałym o 12 V i ujemnym uziemieniu.
- Proszę przed wykonaniem podłączeń odłączyć uziemienie akumulatora, aby zapobiec wystąpieniu zwarcia.
- **Żółty i czerwony** wejściowy przewód zasilający proszę podłączyć dopiero po podłączeniu wszystkich innych przewodów.
- Czerwony przewód zasilający należy koniecznie podłączyć do końcówki +12 V, która jest zasilana zawsze po przekręceniu kluczyka w stacyjce do położenia, w którym włącza się zasilanie przyrządów.
- **Wszystkie przewody uziemiające należy poprowadzić do wspólnego miejsca uziemienia.**
- Proszę podłączyć żółty przewód do wolnego obwodu pojazdu o wyższej niż znamionowa moc nominalna bezpiecznika nabytego sprzętu. Jeżeli urządzenie zostanie podłączone w serii do innych komponentów zestawu stereo, proszę się upewnić, że samochodowy obwód mocy posiada wyższą od sumy znamionowej mocy nominalnej bezpieczników poszczególnych komponentów zestawu. Jeżeli nie ma odpowiedniego wolnego obwodu o mocy znamionowej wyższej niż nominalna moc znamionowa bezpiecznika sprzętu, proszę sprzęt podłączyć bezpośrednio do akumulatora. W przypadku gdy w samochodzie nie ma wolnych obwodów o wyższej od bezpiecznika sprzętu nominalnej mocy znamionowej, proszę sprzęt podłączyć w taki sposób, aby ewentualne przepalenie bezpiecznika sprzętu, nie spowodowało odcięcia pozostałych obwodów mocy w samochodzie.

Przycisk Reset

Po zakończeniu montażu i podłączenia radia należy pamiętać o wciśnięciu przy pomocy długopisu itp. przycisku reset (powrót do pierwotnego ustawienia).

Uwagi na temat przewodów zasilania

- *Przewód zasilania anteny automatycznej (niebieski) dostarcza prąd stały +12 V DC po włączeniu radia lub po uruchomieniu funkcji ATA.*
- *W połączeniu z tym radiem nie można korzystać z automatycznej anteny nie posiadającej skrzynki przekaźnikowej.*

Zasilanie pamięci sprzętu

Jeżeli podłączyło się żółty wejściowy przewód zasilający, obwód pamięci będzie zawsze zasilany, nawet po wyłączeniu stacyjki.

Uwagi na temat podłączania głośników

- *Przed podłączeniem głośników należy wyłączyć sprzęt.*
- *Należy stosować głośniki o impedancji od 4 do 8 omów, posiadające odpowiednią obciążalność mocową, ponieważ w przeciwnym wypadku można uszkodzić głośniki.*
- *Nie należy podłączać przewodów układu głośników do podwozia pojazdu, ani też podłączać przyłączy prawego głośnika do przyłączy lewego głośnika.*
- *Nie należy podłączać głośników równolegle.*
- *Do gniazd sprzętu przeznaczonych dla podłączenia głośników nie należy podłączać głośników aktywnych (z wbudowanymi wzmacniaczami), ponieważ może to prowadzić do ich uszkodzenia. Dlatego też należy podłączać wyłącznie głośniki pasywne do tych gniazd.*

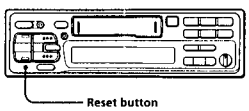
Свързване

Предупреждение

- Този апарат е конструиран за работа само с прав ток 12 V и заземяване на отрицателната клема.
- Преди да направите свързването откачете заземяващата клема на акумулатора на автомобила, за да избегнете къси съединения.
- Свържете **жълтия и червен** захранващи проводници само след като сте свързали всички останали проводници.
- Уверете се, че със сигурност свързвате червения захранващ проводник към положителната клема с 12 V, към която се подава ток при положение на ключа за запалване за спомагателни уреди.
- **Подведете всички заземяващи проводници към обща заземяваща точка.**
- Свържете жълтия проводник към свободна електрическа верига на автомобила с параметри, надхвърлящи тези на ел. предпазител на апарата. В случай, че свържете този апарат последователно с друго стерео оборудване, параметрите на електрическата верига към която те са свързани трябва да надхвърлят сумата от параметрите на ел. предпазители на отделните компоненти. В случай, че автомобила няма ел. верига с параметри, които са по-големи от тези на ел. предпазител на апарата, свържете апарата директно към акумулаторната батерия. В случай, че няма свободни ел. вериги на автомобила, свържете апарата към ел. верига с параметри по-големи от тези на ел. предпазител по такъв начин, че ако изгори ел. предпазител на апарата да не бъде прекъсната нито една друга ел. верига.

Бутон Reset

След като завършите инсталирането и свързването, обезателно натиснете бутона за промяна на настройката с върха на химикалка или нещо друго.



Reset button
Przycisk Reset
Бутон Reset
Reset gomb
Клавиша переустановки

Забележки по проводниците за управление

- *Проводникът за управление на автоматичната антена (син) подава + 12 V прав ток, когато включите апарата, или ако сте активирали функцията ATA (Automatic Tuner Activation).*
- *Автоматична антена без релейна кутия не може да бъде използувана с този апарат.*

Свързване за поддържане на паметта

Когато е свързан жълтия захранващ проводник, към интегралната схема за паметта се подава винаги ток, дори когато ключът за запалване е в изключено положение.

Забележки по свързване на високоговорителите

- *Преди да свържете високоговорителите изключете апарата.*
- *Използувайте високоговорители само със съпротивление от 4 до 8 ома и с мощност, която отговаря на мощността на усилвателя. В противен случай може да повредите високоговорителите.*
- *Не свързвайте клемите на системата на високоговорителите към шасито на автомобила, както и не свързвайте една с друга клемите на десния и на левия високоговорител.*
- *Не се опитвайте да свързвате високоговорителите успоредно.*
- *Въобще не свързвайте никакви активни високоговорители (с вградени усилватели) към клемите за високоговорители на апарата. Ако направите това ще повредите активните високоговорители. Поради това се убедете, че свързвате пасивни високоговорители към клемите на апарата.*

Csatlakozások

Figyelem

- Ez a készülék csak 12 V-os negatív földelésű, egyenáramú akkumulátorról üzemeltethető.
- Egy esetleges rövidzárlat elkerülése érdekében vegye le az autó akkumulátorának csatlakozóját a készülék bekötése előtt.
- A **sárga** és a **piros** színű tápvezetéket csak az összes többi vezeték bekötése után csatlakoztassa.
- A piros vezetéket ahhoz a +12V-os csatlakozási ponthoz csatlakoztassa, mely áramot kap, ha az indítókulcs félig van elfordítva.
- **Az összes földelővezetéket közös földelőponthoz csatlakoztassa.**
- A sárga huzalt a gépjárművön olyan szabad áramkörre kösse be, melynek névleges terhelhetősége magasabb, mint amire a készülék biztosítva van. Ha ezt az egységet más sztereo készülékkel köti sorba, akkor annak az áramkörnek a terhelhetősége, melyre a készülékek rá vannak kötve, magasabb kell hogy legyen, mint az egyes készülékek biztosíték-áramainak összege. Ha a jármű nem rendelkezik olyan áramkörrel, melynek terhelhetősége eléri az egység biztosíték-áramát, akkor kösse az egységet közvetlenül az akkumulátorra. Ha nincs olyan szabad áramkör a gépjárművön, mely alkalmas lenne a készülék bekötésére, akkor a készüléket olyan áramkörre kösse be, mely olymódon rendelkezik magasabb terhelhetőséggel, mint amire a készülék biztosítva van, hogy ha a készülék kioldja a biztosítékot, más áramkörök ezzel nem záródnak le.

Reset gomb

Ha befejezte készüléke beszerelését és csatlakoztatását, feltétlenül nyomja meg a reset gombot egy golyóstollal, vagy más hasonló eszközzel.

Tudnivalók a vezérlővezetékekről

- *A motoros antenna vezérlővezetéke (kék) +12 V egyenfeszültséget kap, ha bekapcsolja a készüléket vagy az ATA (automatikus rádió aktivizálás) funkciót.*
- *Ha a készülékhez motoros antennát csatlakoztat, úgy kizárólag relédobozzal felszerelt motoros antennát használjon.*

Memória megtartás

Ha csatlakoztatja a sárga tápvezetéket, úgy folyamatosan feszültség alatt marad a memória áramkör, még akkor is, ha kikapcsolja a gyújtást.

Tudnivalók a hangszórók csatlakoztatásáról

- *Kérjük kapcsolja ki a készüléket a hangszórók csatlakoztatása előtt.*
- *4-8 ohm impedanciájú, megfelelő teljesítményű hangszórókat használjon, ellenkező esetben ugyanis előfordulhat, hogy a hangszórók károsodnak.*
- *Ne csatlakoztassa a hangszórókat az autó fém szerkezetéhez és ne csatlakoztassa a jobb hangszórót a bal hangszóróhoz.*
- *A hangszórókat semmi esetre se kösse be párhuzamosan.*
- *Ne csatlakoztasson aktív (beépített erősítővel felszerelt) hangszórókat a készülékhez, ellenkező esetben ugyanis károsodhatnak az aktív hangszórók. A készülékhez csak passzív hangszórókat szabad csatlakoztatni.*

Соединения

Предостережение

- Данный прибор сконструирован только для эксплуатации на минусе с постоянным напряжением 12 В.
- Перед подключением отсоедините заземляющую клемму автомобильного аккумулятора для предотвращения короткого замыкания.
- **Желтый и красный** сетевые провода подсоединяйте только после того, как все остальные провода подсоединены.
- Красный сетевой провод подключайте к положительной клемме 12 В, которая находится под напряжением, когда ключ зажигания в промежуточной позиции.
- **Все заземляющие провода соедините с подходящей точкой на массе.**
- Соедините желтый провод со свободным контуром на автомобиле, имеющим большую мощность, чем плавкий предохранитель прибора. Если Вы подключаете этот прибор вместе с другими стереокомпонентами, контуры автомобиля, к которым они подключены, должны иметь большую мощность, чем сумма мощностей плавких предохранителей отдельных компонентов. Если ни один из контуров автомобиля не имеет мощности плавкого предохранителя прибора, подключите прибор непосредственно к аккумулятору. Если на автомобиле для подключения прибора не осталось свободного контура, подключите прибор к любому контуру, имеющему большую мощность, чем плавкий предохранитель прибора таким образом, чтобы при сгорании предохранителя не были разомкнуты другие контуры.

Клавиша переустановки

Когда установка и подключения завершены, нажмите клавишу переустановки с помощью шариковой ручки и т.д.

Примечания по управляющим проводам

- *Провод, управляющий питанием антенны (голубой) подает постоянное напряжение + 12 В, если Вы включили прибор или если Вы включили функцию ATA (Автоматическая Активация Тюнера).*
- *Электрическая антенна без коробки реле не может быть использована с данным прибором.*

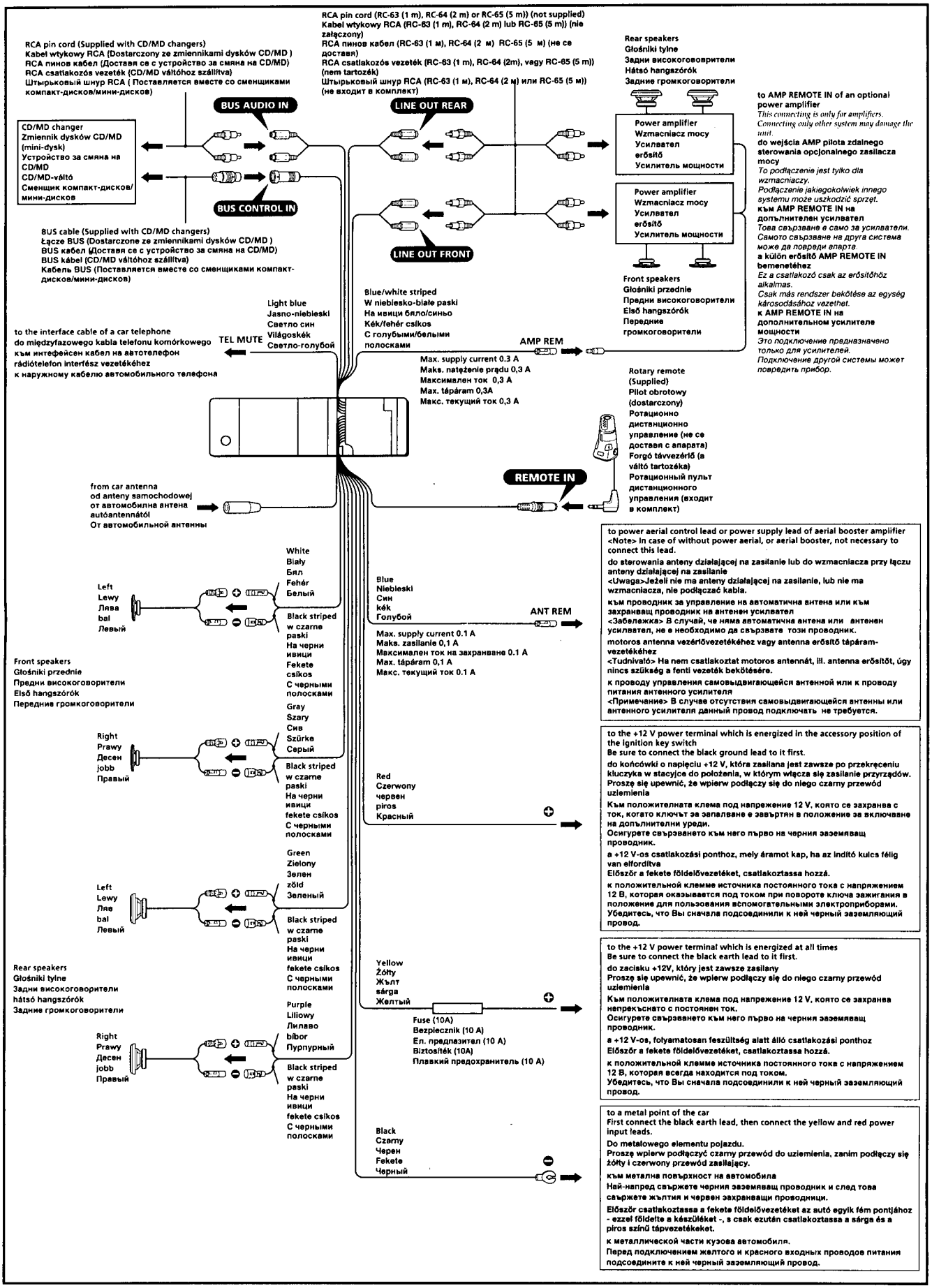
Соединение поддержки памяти

Если желтый сетевой провод подключен, питание будет подаваться для поддержки памяти всегда, даже при выключенном зажигании.

Примечания по подключению громкоговорителей

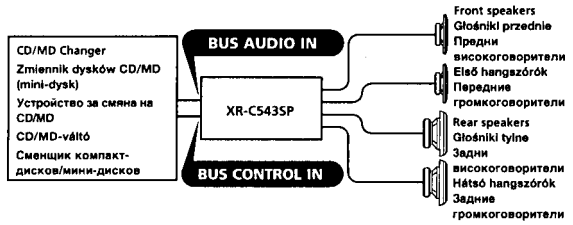
- *Перед подключением громкоговорителей выключите прибор.*
- *Используйте громкоговорители с сопротивлением от 4 до 8 Ом и с адекватной мощностью. Иначе громкоговорители могут быть повреждены.*
- *Не подсоединяйте клеммы громкоговорителей на массу и не соединяйте клеммы правых громкоговорителей с клеммами левых.*
- *Не пытайтесь подключить громкоговорители параллельно.*
- *Не подключайте активные громкоговорители (со встроенным усилителем) к клеммам громкоговорителей на приборе. Это может повредить активные громкоговорители. Поэтому убедитесь, что подключаете пассивные громкоговорители к данным клеммам.*

Connections of Example — Przykład podłączenia — Примери за свързване — Bekötési példák — Соединения в примере

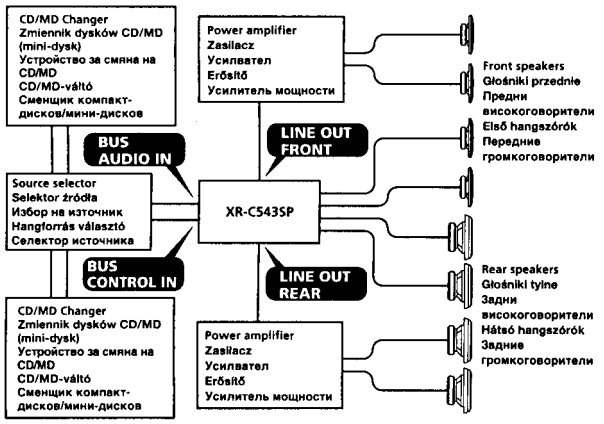

RCA pin cord (Supplied with CD/MD changers)
Kabel wtykowy RCA (Dostarczony ze zmiennikami dysków CD/MD)
RCA пинов кабел (Доставя се с устройство за смяна на CD/MD)
RCA csatlakozós vezeték (CD/MD váltóhoz szállítva)
Штырьковый шнур RCA (Поставляется вместе со сменщиками компакт-дисков/мини-дисков)
RCA pin cord (RC-63 (1 m), RC-64 (2 m) or RC-65 (5 m)) (not supplied)
Kabel wtykowy RCA (RC-63 (1 m), RC-64 (2 m) lub RC-65 (5 m)) (nie załączony)
RCA пинов кабел (RC-63 (1 м), RC-64 (2 м) RC-65 (5 м) (не се доставя)
RCA csatlakozós vezeték (RC-63 (1 m), RC-64 (2m), vagy RC-65 (5 m)) (nem tartozék)
Штырьковый шнур RCA (RC-63 (1 м), RC-64 (2 м) или RC-65 (5 м)) (не входит в комплект)
Rear speakers
Głośniki tylne
Задни високоговорители
Hátsó hangszórók
Задние громкоговорители
BUS AUDIO IN
LINE OUT REAR
CD/MD changer
Zmiennik dysków CD/MD (mini-dysk)
Устройство за смяна на CD/MD
CD/MD-váltó
Сменщик компакт-дисков/мини-дисков
Power amplifier
Wzmacniacz mocy
Усилвател
erősítő
Усилитель мощности
to AMP REMOTE IN of an optional power amplifier
This connecting is only for amplifiers. Connecting only other system may damage the unit.
do wejścia AMP pilota zdalnego sterowania opcjonalnego zasilacza mocy
To podłączenie jest tylko dla wzmacniaczy.
Podłączenie jakiegokolwiek innego systemu może uszkodzić sprzęt.
към AMP REMOTE IN на допълнителен усилвател
Това свързване е само за усилватели. Самото свързване на друга система може да повреди апарта.
a külön erősítő AMP REMOTE IN bemenetéhez
Ez a csatlakozó csak az erősítőhöz alkalmas.
Csak más rendszer bekötése az egység károsodásához vezethet.
к AMP REMOTE IN на дополнительном усилителе мощности
Это подключение предназначено только для усилителей.
Подключение другой системы может повредить прибор.
BUS CONTROL IN
LINE OUT FRONT
BUS cable (Supplied with CD/MD changers)
Łącze BUS (Dostarczone ze zmiennikami dysków CD/MD)
BUS кабел (Доставя се с устройство за смяна на CD/MD)
BUS kábel (CD/MD váltóhoz szállítva)
Кабель BUS (Поставляется вместе со сменщиками компакт-дисков/мини-дисков)
Front speakers
Głośniki przednie
Предни високоговорители
Első hangszórók
Передние громкоговорители
Blue/white striped
W niebiesko-białe paski
На ивици бяло/синьо
Kék/fehér csíkos
С голубыми/белыми полосками
Light blue
Jasno-niebieski
Светло син
Világoskék
Светло-голубой
to the interface cable of a car telephone
do międzyfazowego kabla telefonu komórkowego
към интефейсен кабел на автотелефон
rádiótelefon interfész vezetékéhez
к наружному кабелю автомобильного телефона
TEL MUTE
AMP REM
Max. supply current 0.3 A
Maks. natężenie prądu 0,3 A
Максимален ток 0,3 A
Max. tápáram 0,3A
Макс. текущий ток 0,3 A
Rotary remote (Supplied)
Pilot obrotowy (dostarczony)
Ротационно дистанционно управление (не се доставя с апарата)
Forgó távvezérlő (a váltó tartozéka)
Ротационный пульт дистанционного управления (входит в комплект)
REMOTE IN
from car antenna
od anteny samochodowej
от автомобилна антена
autóantennától
От автомобильной антенны
to power aerial control lead or power supply lead of aerial booster amplifier
<Note> In case of without power aerial, or aerial booster, not necessary to connect this lead.
do sterowania anteny działającej na zasilanie lub do wzmacniacza przy łączu anteny działającej na zasilanie
<Uwaga>Jeżeli nie ma anteny działającej na zasilanie, lub nie ma wzmacniacza, nie podłączać kabla.
към проводник за управление на автоматична антена или към захранващ проводник на антенен усилвател
<Забележка> В случай, че няма автоматична антена или антенен усилвател, не е необходимо да свързвате този проводник.
motoros antenna vezérlővezetékéhez vagy antenna erősítő tápáram-vezetékéhez
<Tudnivaló> Ha nem csatlakoztat motoros antennát, ill. antenna erősítőt, úgy nincs szükség a fenti vezeték bekötésére.
к проводу управления самовыдвигающейся антенной или к проводу питания антенного усилителя
<Примечание> В случае отсутствия самовыдвигающейся антенны или антенного усилителя данный провод подключать не требуется.
White
Biały
Бял
Fehér
Белый
Left
Lewy
Ляв
bal
Левый
Black striped w czarne paski
На черни ивици
Fekete csíkos
С черными полосками
Blue
Niebieski
Син
kék
Голубой
ANT REM
Max. supply current 0.1 A
Maks. zasilanie 0,1 A
Максимален ток на захранване 0.1 A
Max. tápáram 0,1 A
Макс. текущий ток 0.1 A
Front speakers
Głośniki przednie
Предни високоговорители
Első hangszórók
Передние громкоговорители
Gray
Szary
Сив
Szürke
Серый
Right
Prawy
Десен
jobb
Правый
Black striped w czarne paski
На черни ивици
Fekete csíkos
С черными полосками
to the +12 V power terminal which is energized in the accessory position of the ignition key switch
Be sure to connect the black ground lead to it first.
do końcówki o napięciu +12 V, która zasilana jest zawsze po przekręceniu kluczyka w stacyjce do położenia, w którym włącza się zasilanie przyrządów. Proszę się upewnić, że wpierw podłączy się do niego czarny przewód uziemienia
Към положителната клема под напрежение 12 V, която се захранва с ток, когато ключът за запалване е завъртян в положение за включване на допълнителни уреди.
Осигурете свързването към него първо на черния заземяващ проводник.
a +12 V-os csatlakozási ponthoz, mely áramot kap, ha az indító kulcs félig van elfordítva
Először a fekete földelővezetéket, csatlakoztassa hozzá.
к положительной клемме источника постоянного тока с напряжением 12 В, которая оказывается под током при повороте ключа зажигания в положение для пользования вспомогательными электроприборами.
Убедитесь, что Вы сначала подсоединили к ней черный заземляющий провод.
Red
Czerwony
червен
piros
Красный
Green
Zielony
Зелен
zöld
Зеленый
Left
Lewy
Ляв
bal
Левый
Black striped w czarne paski
На черни ивици
fekete csíkos
С черными полосками
Rear speakers
Głośniki tylne
Задни високоговорители
hátsó hangszórók
Задние громкоговорители
to the +12 V power terminal which is energized at all times
Be sure to connect the black earth lead to it first.
do zacisku +12V, który jest zawsze zasilany
Proszę się upewnić, że wpierw podłączy się do niego czarny przewód uziemienia
Към положителната клема под напрежение 12 V, която се захранва непрекъснато с постоянен ток.
Осигурете свързването към него първо на черния заземяващ проводник.
a +12 V-os, folyamatosan feszültség alatt álló csatlakozási ponthoz
Először a fekete földelővezetéket, csatlakoztassa hozzá.
к положительной клемме источника постоянного тока с напряжением 12 В, которая всегда находится под током.
Убедитесь, что Вы сначала подсоединили к ней черный заземляющий провод.
Yellow
Żółty
Жълт
sárga
Желтый
Purple
Liliowy
Лилаво
bíbor
Пурпурный
Fuse (10A)
Bezpiecznik (10 A)
Ел. предпазител (10 A)
Biztosíték (10A)
Плавкий предохранитель (10 A)
Right
Prawy
Десен
jobb
Правый
Black striped w czarne paski
На черни ивици
fekete csíkos
С черными полосками
to a metal point of the car
First connect the black earth lead, then connect the yellow and red power input leads.
Do metalowego elementu pojazdu.
Proszę wpierw podłączyć czarny przewód do uziemienia, zanim podłączy się żółty i czerwony przewód zasilający.
към метална повърхност на автомобила
Най-напред свържете черния заземяващ проводник и след това свържете жълтия и червен захранващи проводници.
Először a fekete földelővezetéket az autó egyik fém pontjához - ezzel földelte a készüléket -, s csak ezután csatlakoztassa a sárga és a piros színű tápvezetékeket.
к металлической части кузова автомобиля.
Перед подключением желтого и красного входных проводов питания подсоедините к ней черный заземляющий провод.
Black
Czarny
Черен
Fekete
Черный

Connection diagram
Schemat wykonania podłączeń
Схема на свързване
Bekötési rajz
Диаграмма соединений

Example 1/Przykład nr 1/Пример 1/1. példa/Пример 1



Example 2/Przykład nr 2/Пример 2/2. példa/Пример 2



For connecting two or more changers, the source selector XA-C30 (optional) and the BUS cable RC-61 (1 m) or RC-62 (2 m) (optional) are necessary.

Aby podłączyć dwa lub więcej zmienników niezbędne są selektory źródła zasilania XA-C30 (opcja) oraz łącze BUS RC-61 (1 m) lub RC-62 (2 m) (opcja).

За свързване на два или повече източника са необходими устройство за избор на източника XA-C30 (опция), както и BUS кабел RC-61 (1 м.) или RC-62 (2 м.) (опция).

Két vagy több váltó bekötéséhez használja a külön megvásárolandó XA-C30 cikkszámú forrásválasztót és az RC-61 cikkszámú (1m-es), vagy RC-62 cikkszámú (2 m-es) BUS-kábelt.

При подключении двух или более сменщиков необходим селектор источника XA-C30 (дополнительное оборудование) и кабель BUS RC-61 (1 м) или RC-62 (2 м) (дополнительное оборудование).

Note for Connecting

If there is alternator noise (a whining sound when raising engine speed), ground the bracket by connecting it to a metal point of the car with the supplied chassis ground cord Ⓐ. Connect the ground cord to the bracket with part Ⓑ as shown in the illustration.

Remarque sur le raccordement

Si l'alternateur génère des interférences (pleurage lorsque le régime moteur augmente), reliez le support à la masse en le raccordant à un point métallique de la voiture au moyen du fil de masse pour châssis Ⓐ fourni. Raccordez le fil de masse au support au moyen de la pièce Ⓑ comme indiqué dans l'illustration.

Nota sobre conexión

Si el alternador produce ruido (un zumbido al aumentar la velocidad del motor), conecte el soporte a tierra y, para ello, enchúfelo a un punto metálico del automóvil con el cable de toma a tierra de chasis Ⓐ suministrado. Conecte el cable de toma a tierra al soporte con la parte Ⓑ como muestra la ilustración.

Bağlantı Notları

Eğer ekstra bir parazit varsa (motor hızını artırdığınızda bir vınlama sesi gibi), kızağı, birlikte sunulan kasa topraklama teli Ⓐ ile arabanın metal bir noktasına bağlayarak topraklayınız.
Topraklama telini kızağa Ⓑ parçasını kullanarak şekildeki gibi bağlayınız.

Uwagi dotyczące podłączenia

W razie wystąpienia szmerów pochodzących z prądnicy (wysokie tony przy zwiększonych obrotach silnika), należy uziemić wspornik przez podłączenie dostarczonego kabla uziemiającego Ⓐ do dowolnego metalowego elementu pojazdu. Podłączyć kabel uziemienia do wspornika przy użyciu elementu oznaczonego na rysunku cyfrę Ⓑ.

Забележка по свързването

В случай, че се появи шум от алтернатора (свистене при повишаване на оборотите), заземете конзолата като я свържете с помощта на доставения с апарата заземяващ проводник Ⓐ към метална повърхност от автомобила. Извършете свързването на заземяващия проводник към конзолата с помощта на детайла Ⓑ както е показано на фигурата.

Tudnivaló a csatlakoztatásról

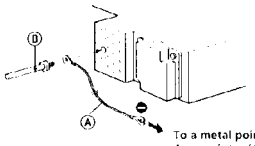
Ha gyorsítás (a motor fordulatszámának növelése) közben sivító zajt hall, földelje le a tartókeretet csatlakoztassa a mellékelt alaplemez földelő vezetéket Ⓐ a gépkocsi egyik fém pontjához. A földelővezetéket az ábra alapján a Ⓑ-vel jelölt elemmel rögzítse a tartókerethez, az ábra alapján.

Примечание по подключению

Если генератор издает шум (воющий звук при наборе скорости), заземлите скобу, соединив его с металлической точкой на автомобиле с помощью входящего в комплект заземляющего провода Ⓐ. Соедините заземляющий провод со скобой с помощью части Ⓑ как показано на иллюстрации.

ملاحظة للتوصيل

اذا صدرت ضوضاء عن المولد (صوت طنين عند زيادة سرعة المحرك)، قم بتأريض الدعامة بتوصيلها بنقطة معدنية في السيارة وذلك باستعمال سلك تأريض الشاسي المجهز Ⓐ
قم بتوصيل سلك التأريض بالدعامة بواسطة القطعة Ⓑ كما هو موضح بالرسم

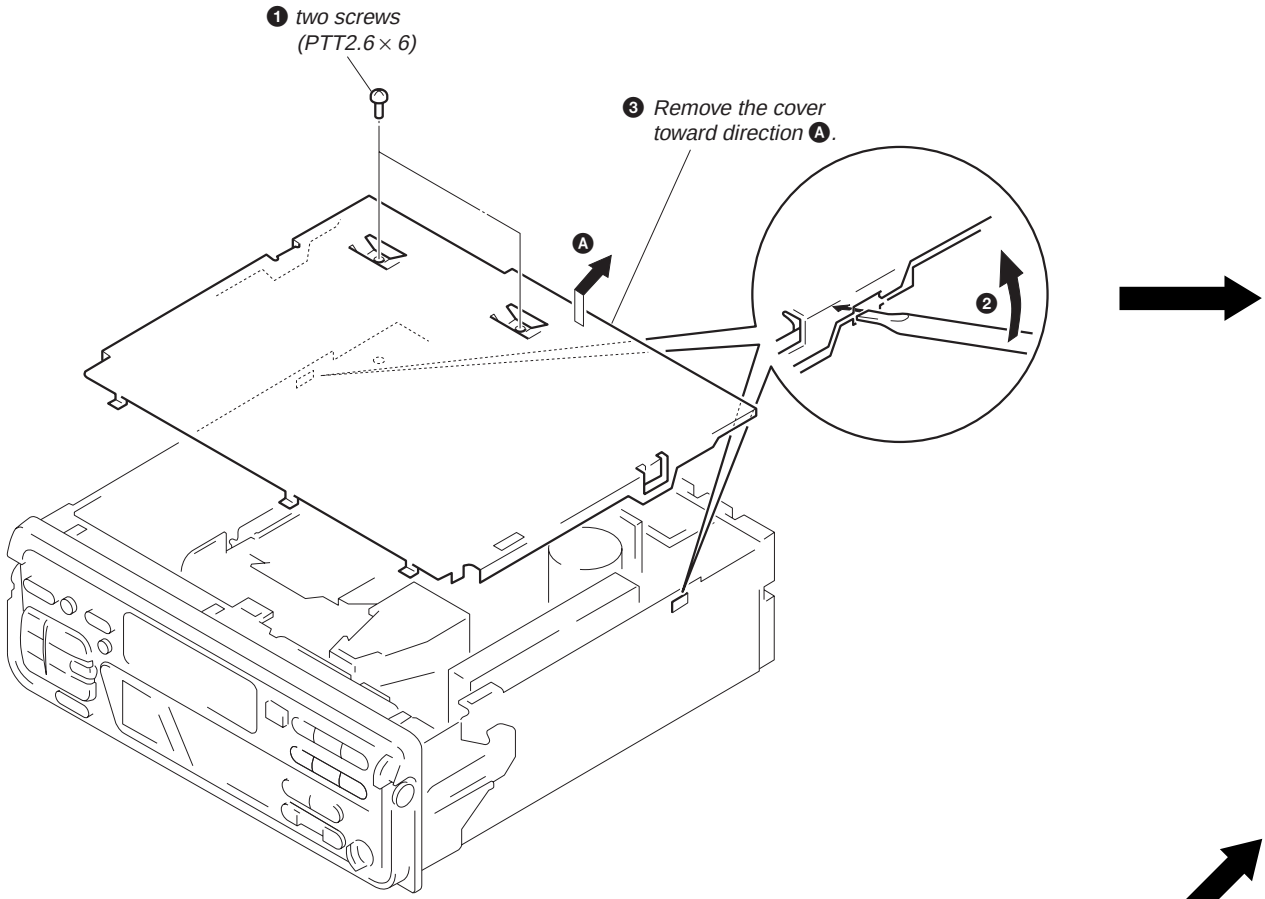


To a metal point of the car
A un point métallique de la voiture
A un punto de metal del automóvil
Arabanın metal bir noktasına.
do dowolnego metalowego elementu pojazdu
към метална повърхност от автомобила
a gépkocsi egyik fém pontjához
к металлической точке на автомобиле
لنقطة معدنية في السيارة

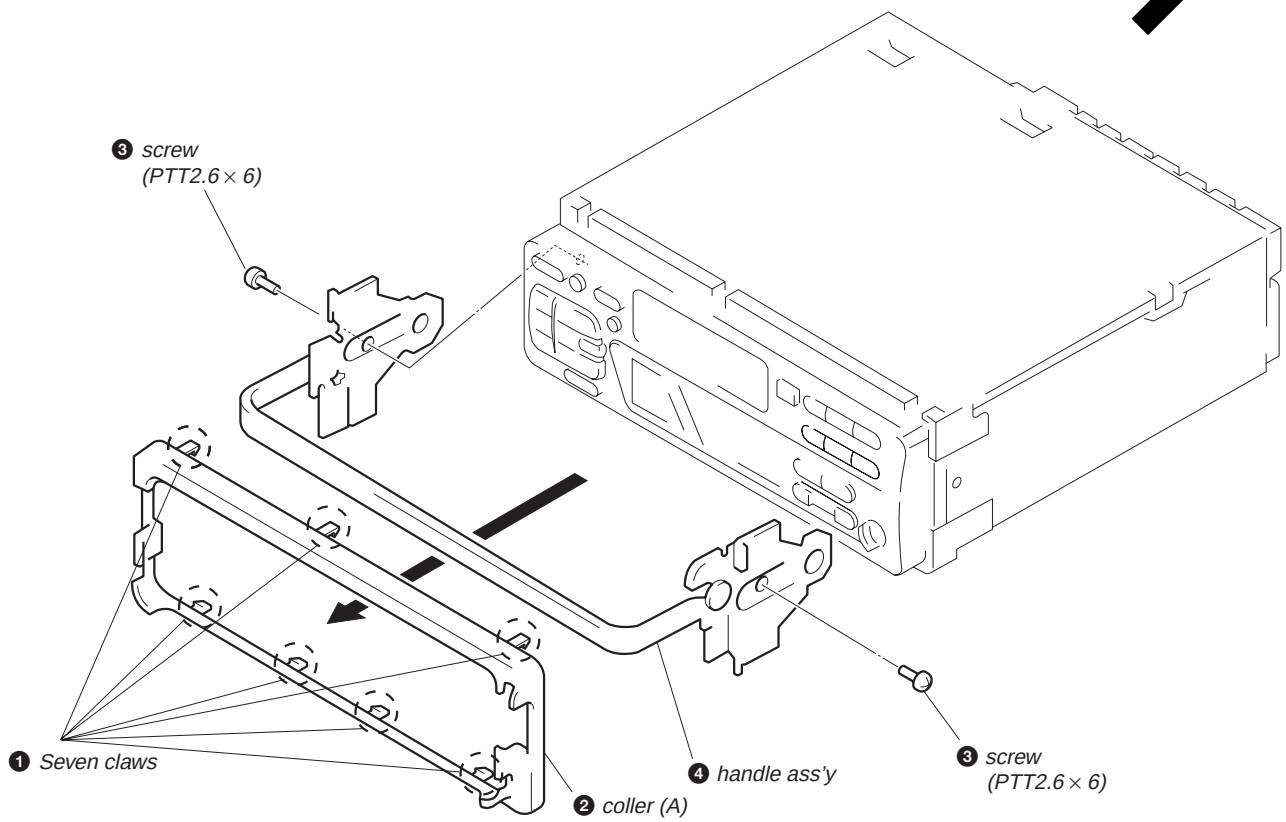
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

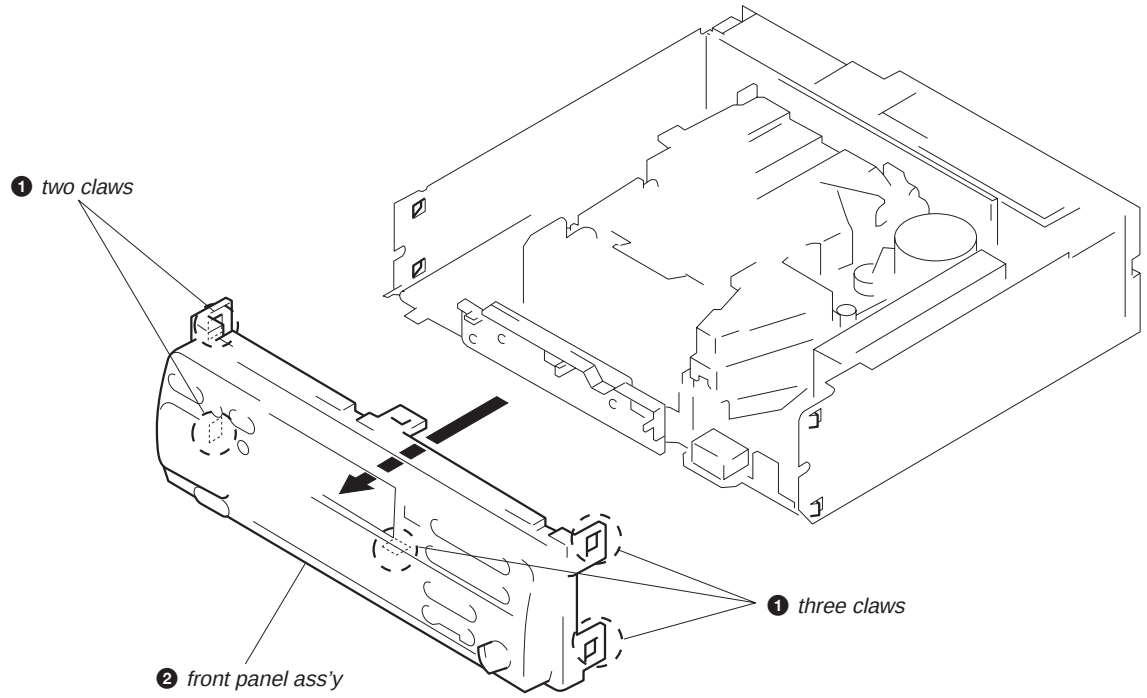
COVER



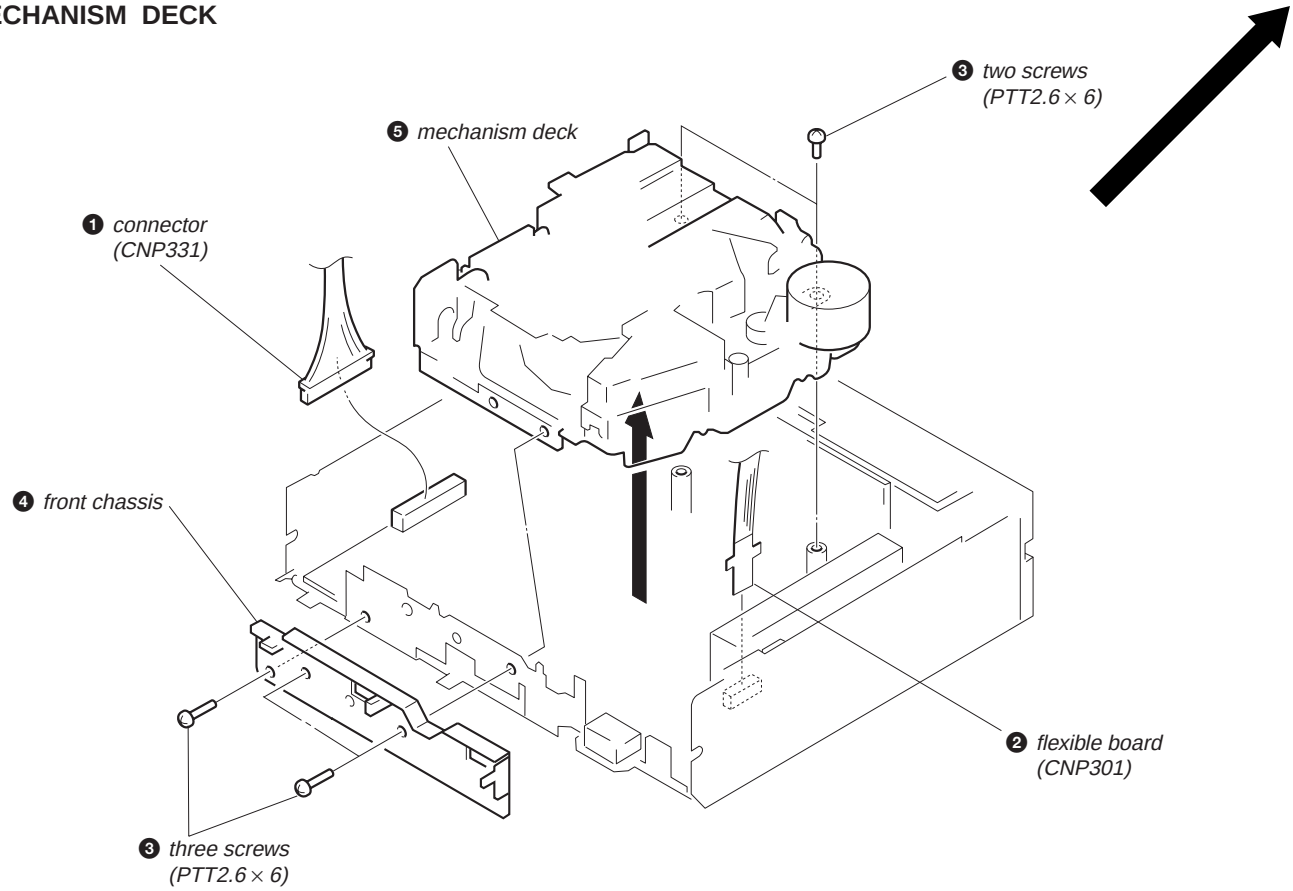
COLLAR (A), HANDLE ASS'Y



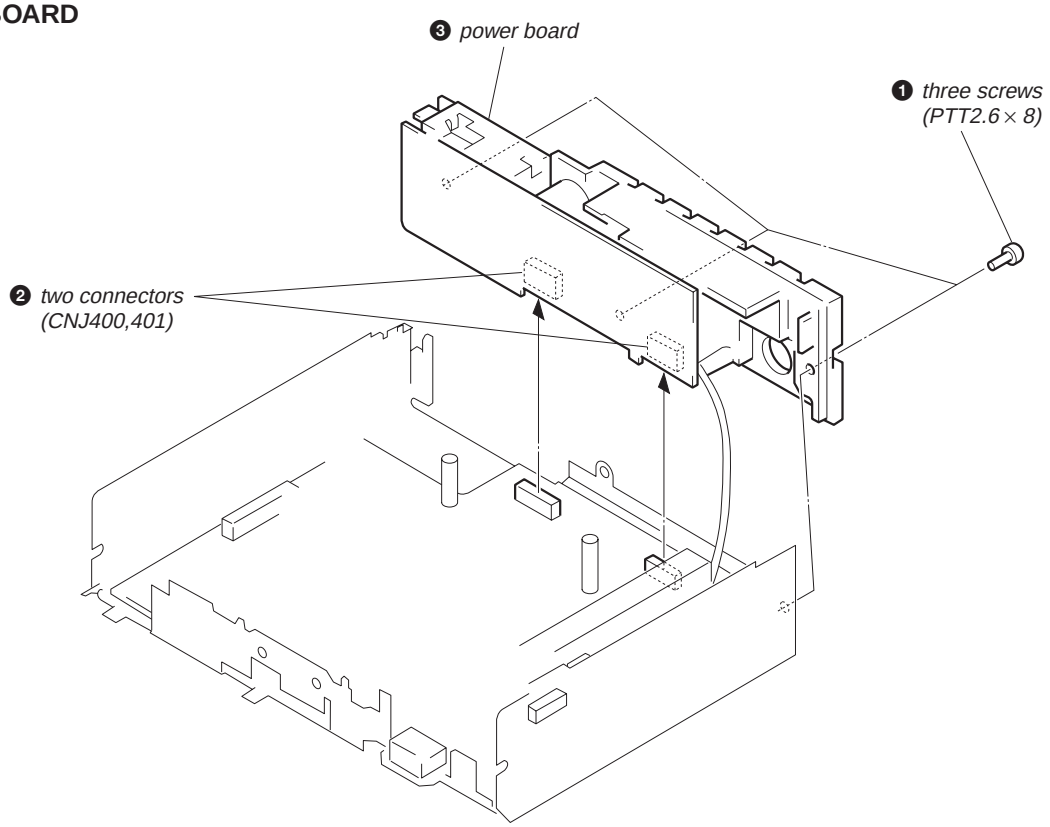
FRONT PANEL ASS'Y



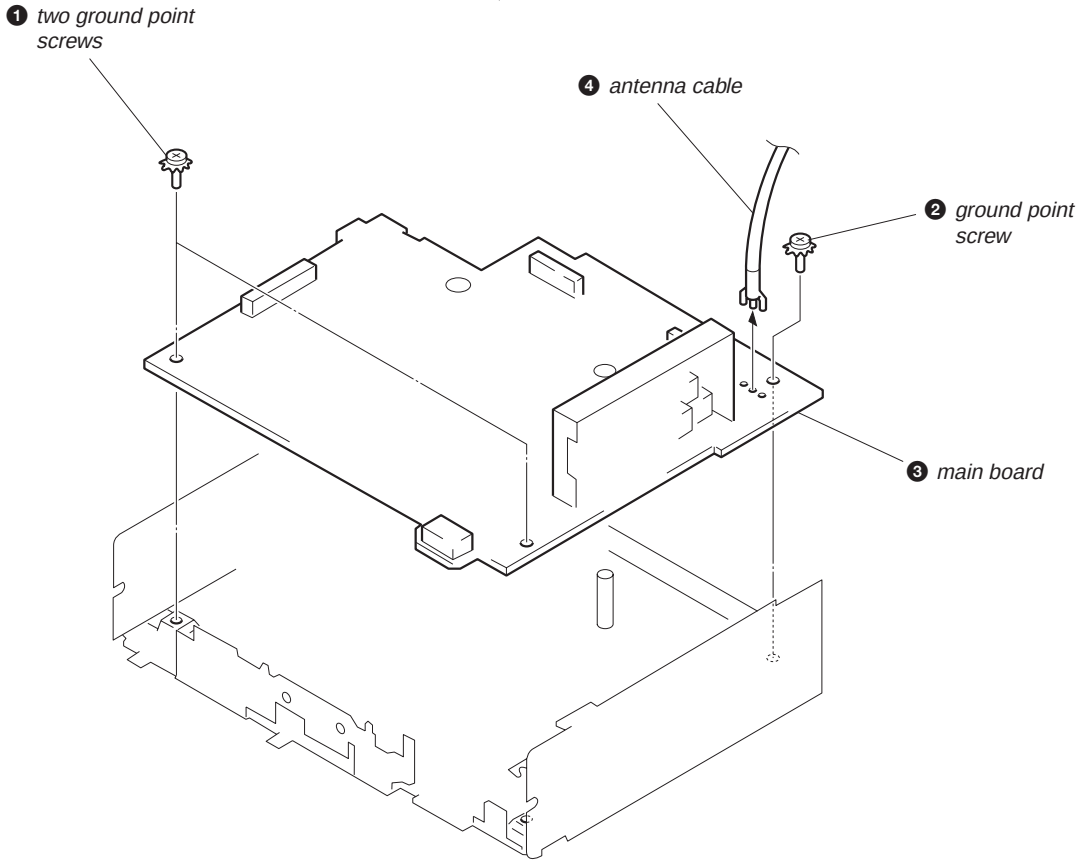
MECHANISM DECK



POWER BOARD



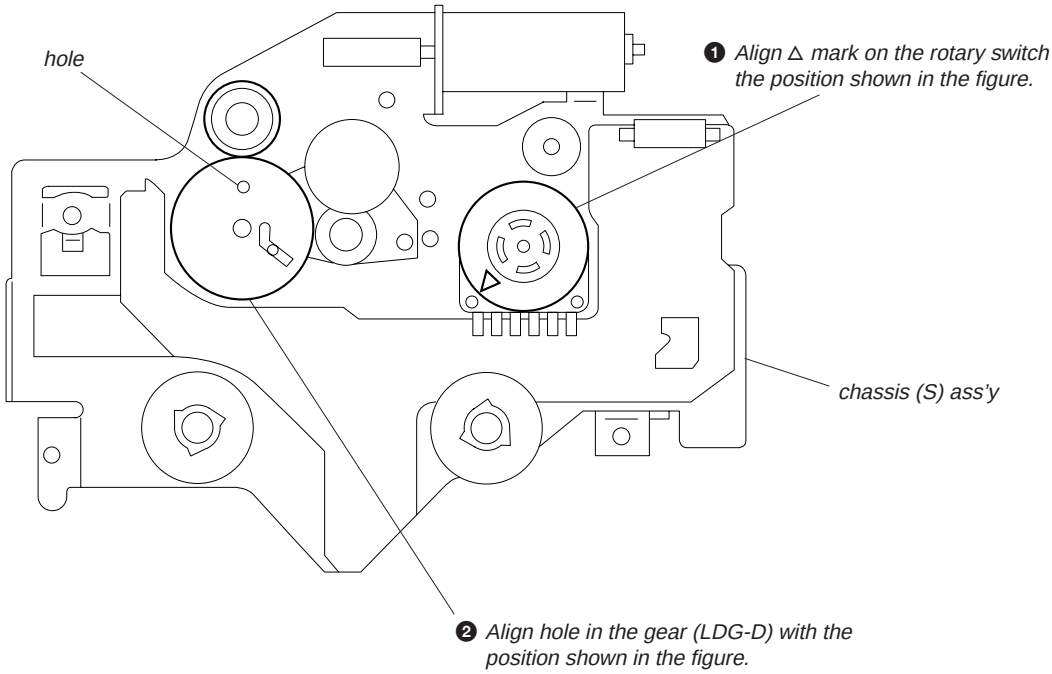
MAIN BOARD



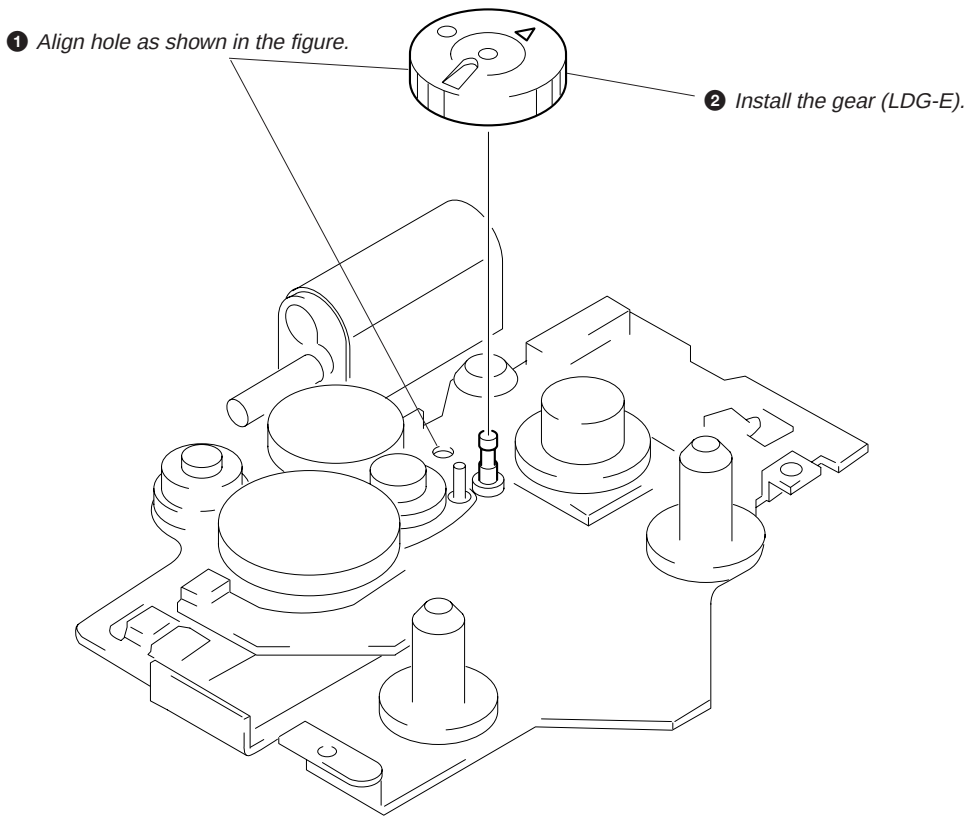
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note: Follow the assembly procedure in the numerical order given.

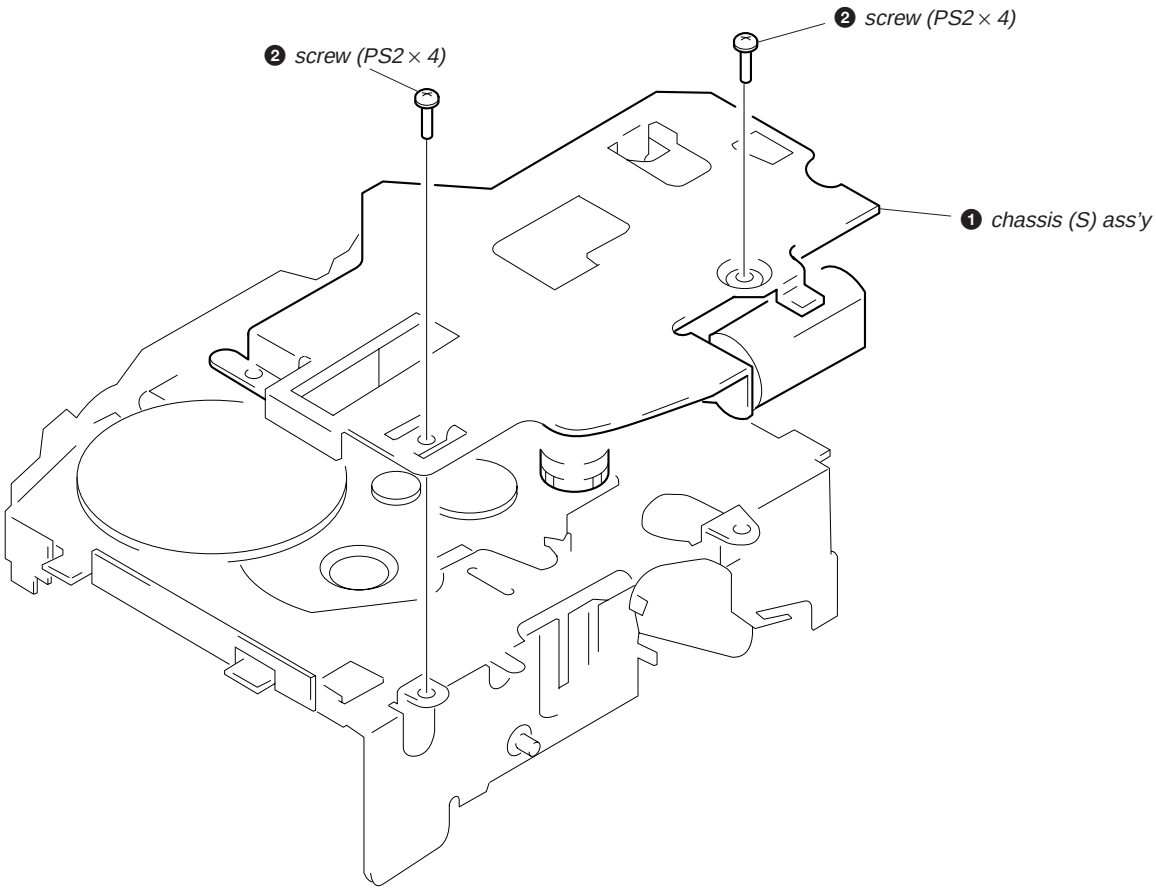
ALIGNMENT OF FRONT SWITCH


hole
❶ Align △ mark on the rotary switch the position shown in the figure.
chassis (S) ass'y
❷ Align hole in the gear (LDG-D) with the position shown in the figure.

GEAR (LDGE)

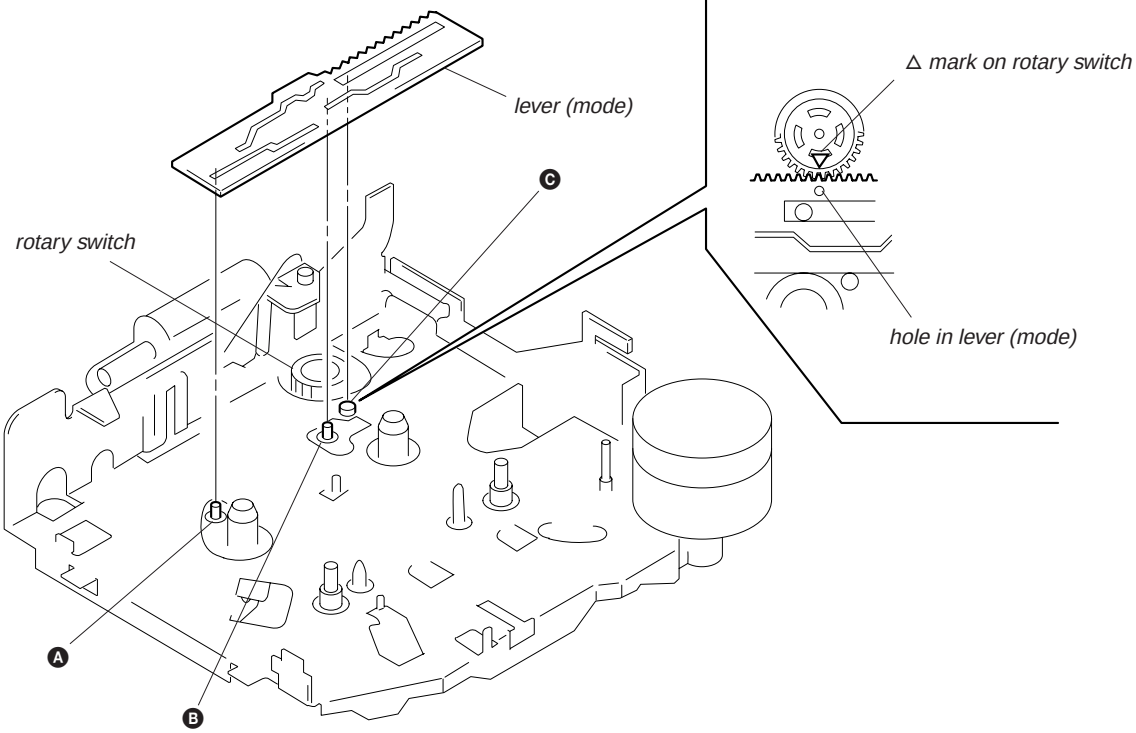


CHASSIS (S) ASS'Y

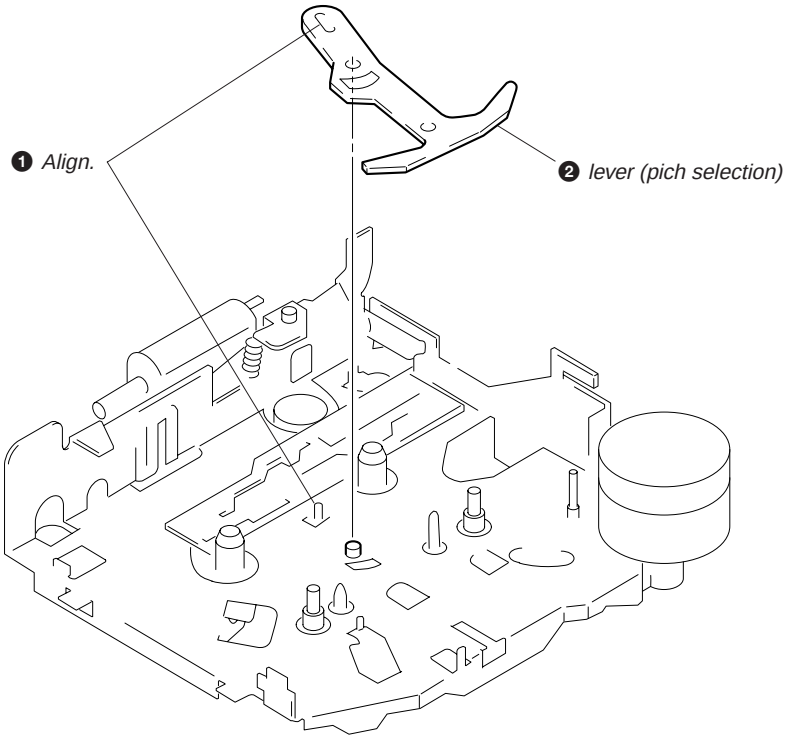


LEVER (MODE)

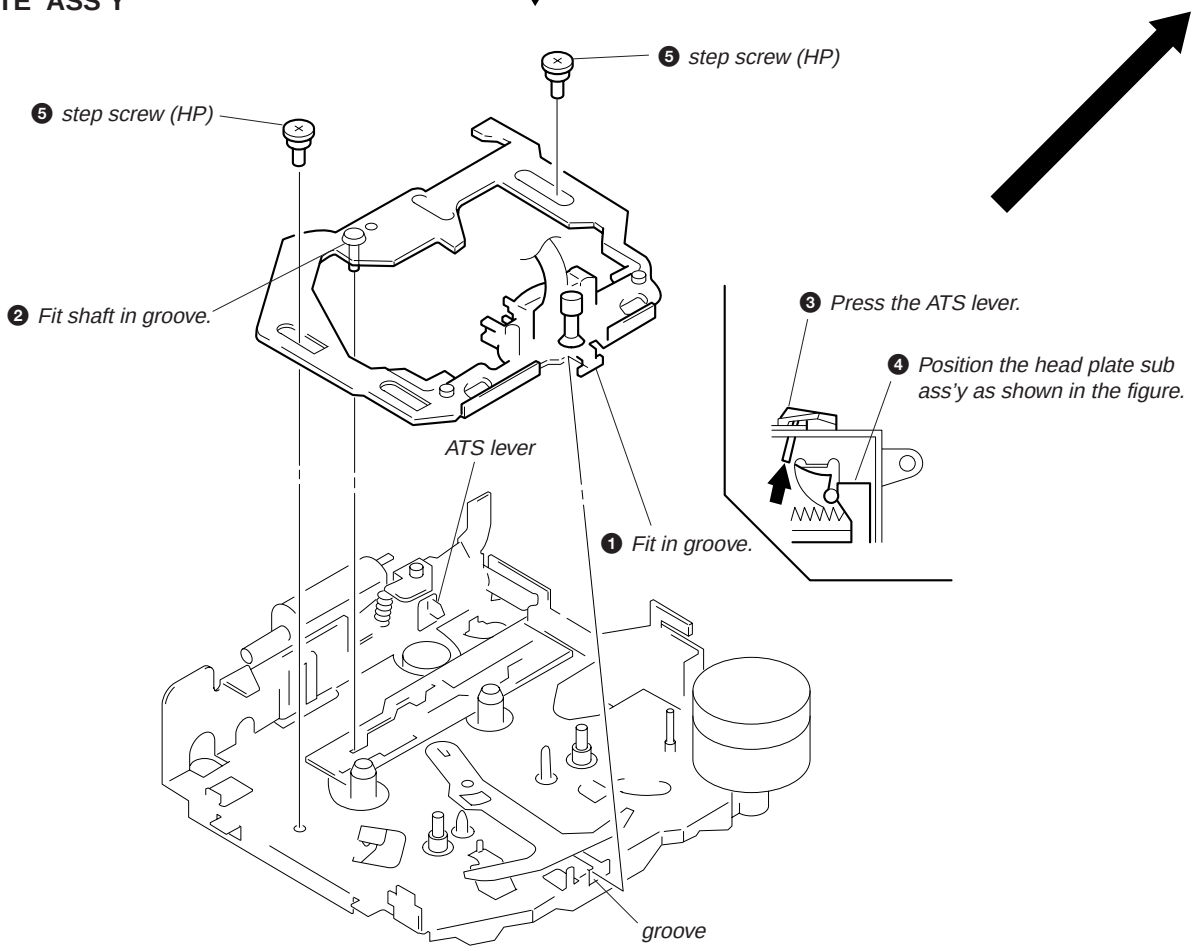
1. *Align △ mark on the rotary switch with hole in the lever (mode).*
2. *Fit on positions Ⓐ, Ⓑ and Ⓒ and install the lever (mode).*



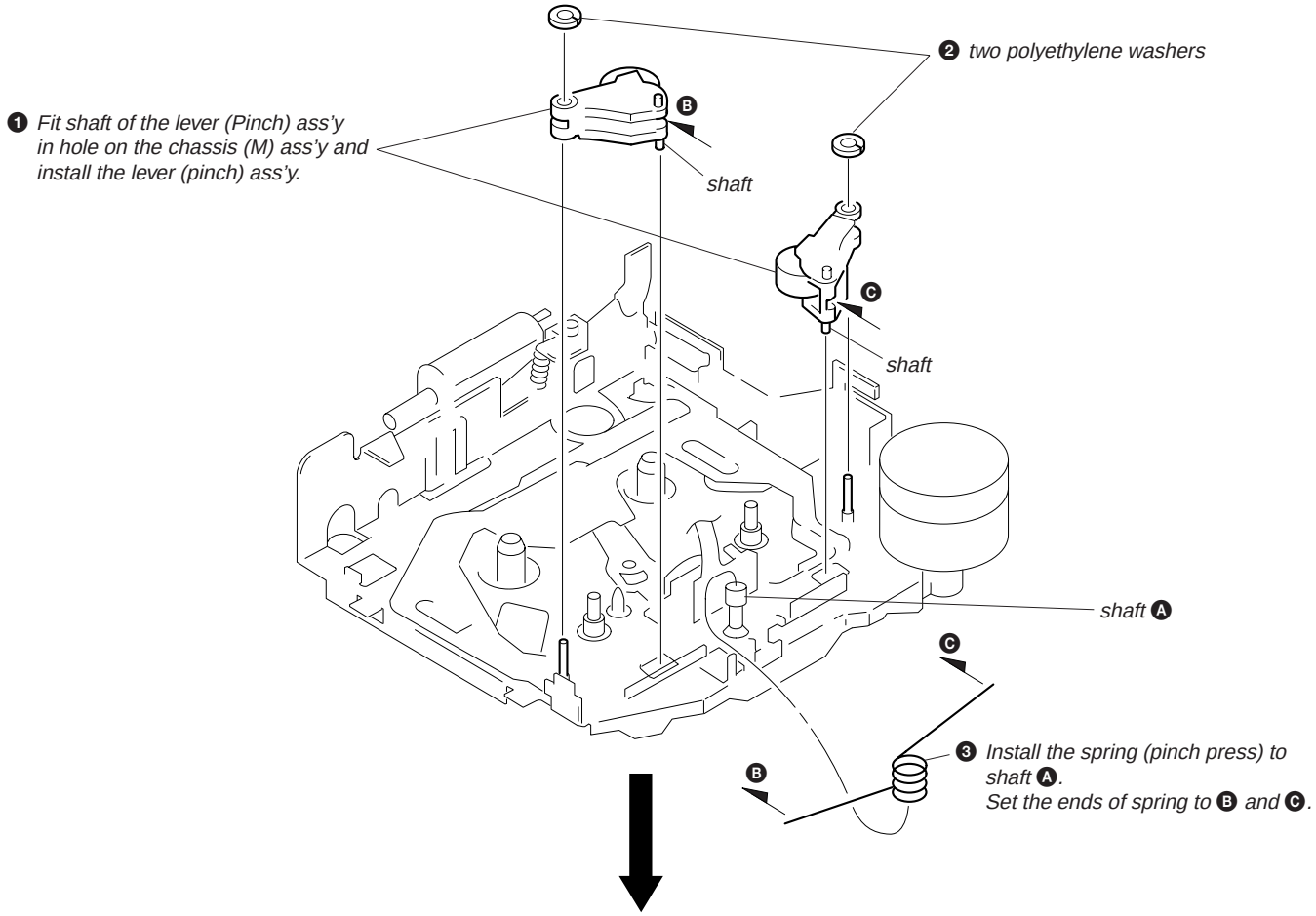
LEVER (PINCH SELECTION)



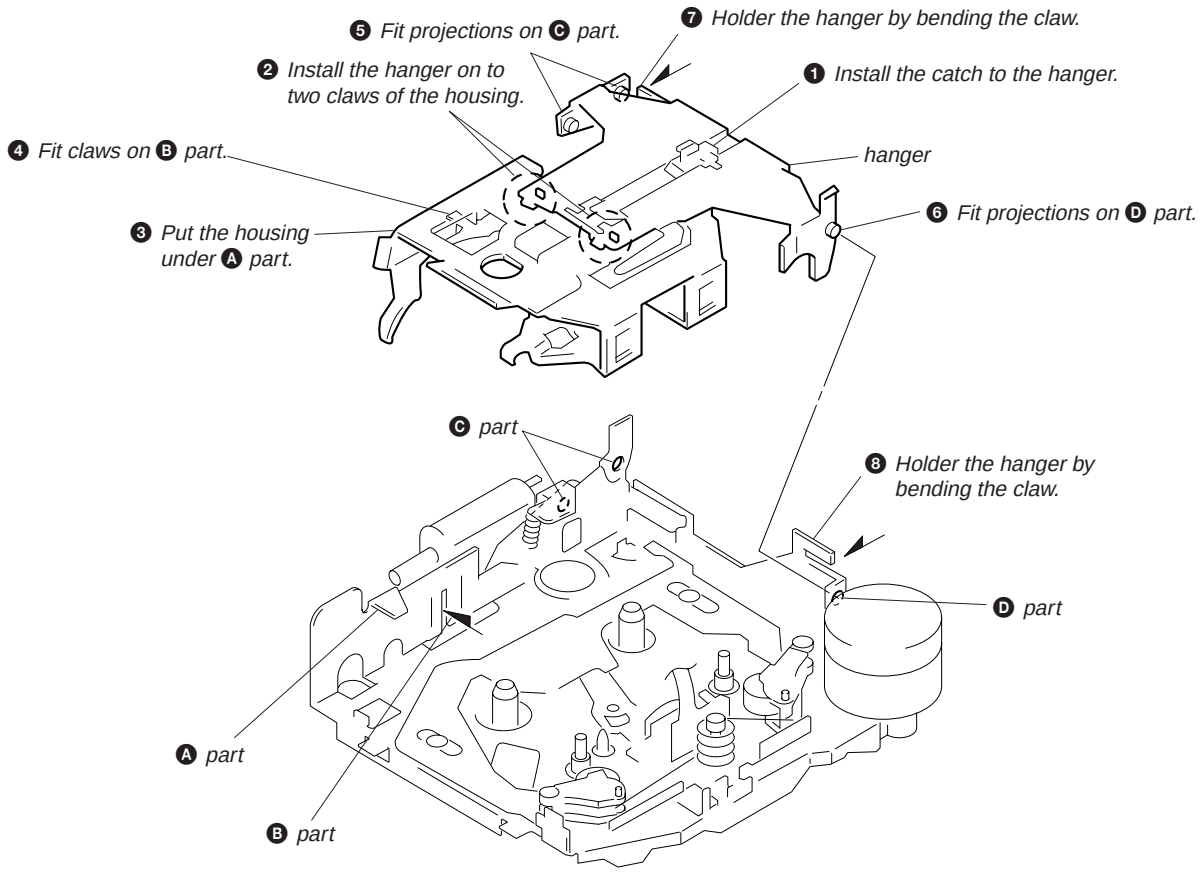
HEAD PLATE ASS'Y


❺ step screw (HP)
❺ step screw (HP)
❷ Fit shaft in groove.
❸ Press the ATS lever.
❹ Position the head plate sub ass'y as shown in the figure.
ATS lever
❶ Fit in groove.
groove

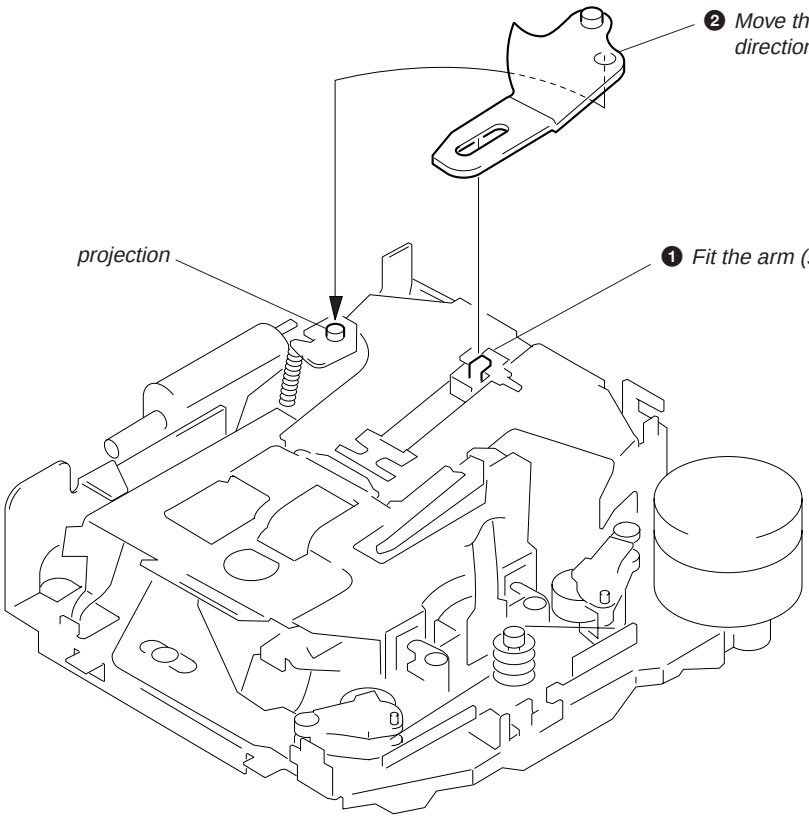
LEVER (PINCH) ASS'Y


❷ two polyethylene washers
❶ Fit shaft of the lever (Pinch) ass'y in hole on the chassis (M) ass'y and install the lever (pinch) ass'y.
Ⓑ
shaft
Ⓒ
shaft
shaft Ⓐ
Ⓒ
❸ Install the spring (pinch press) to shaft Ⓐ.
Set the ends of spring to Ⓑ and Ⓒ.
Ⓑ

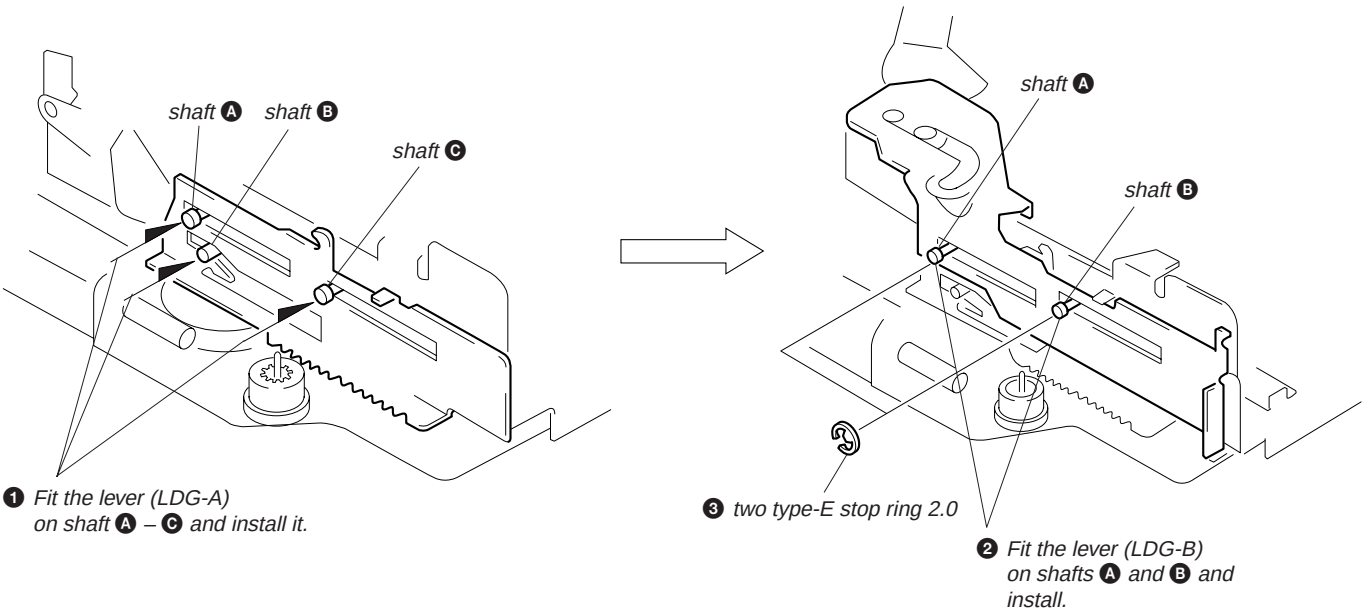
HOUSING


❺ Fit projections on Ⓒ part.
❼ Holder the hanger by bending the claw.
❷ Install the hanger on to two claws of the housing.
❶ Install the catch to the hanger.
❹ Fit claws on Ⓑ part.
hanger
❸ Put the housing under Ⓐ part.
❻ Fit projections on Ⓓ part.
Ⓒ part
❽ Holder the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

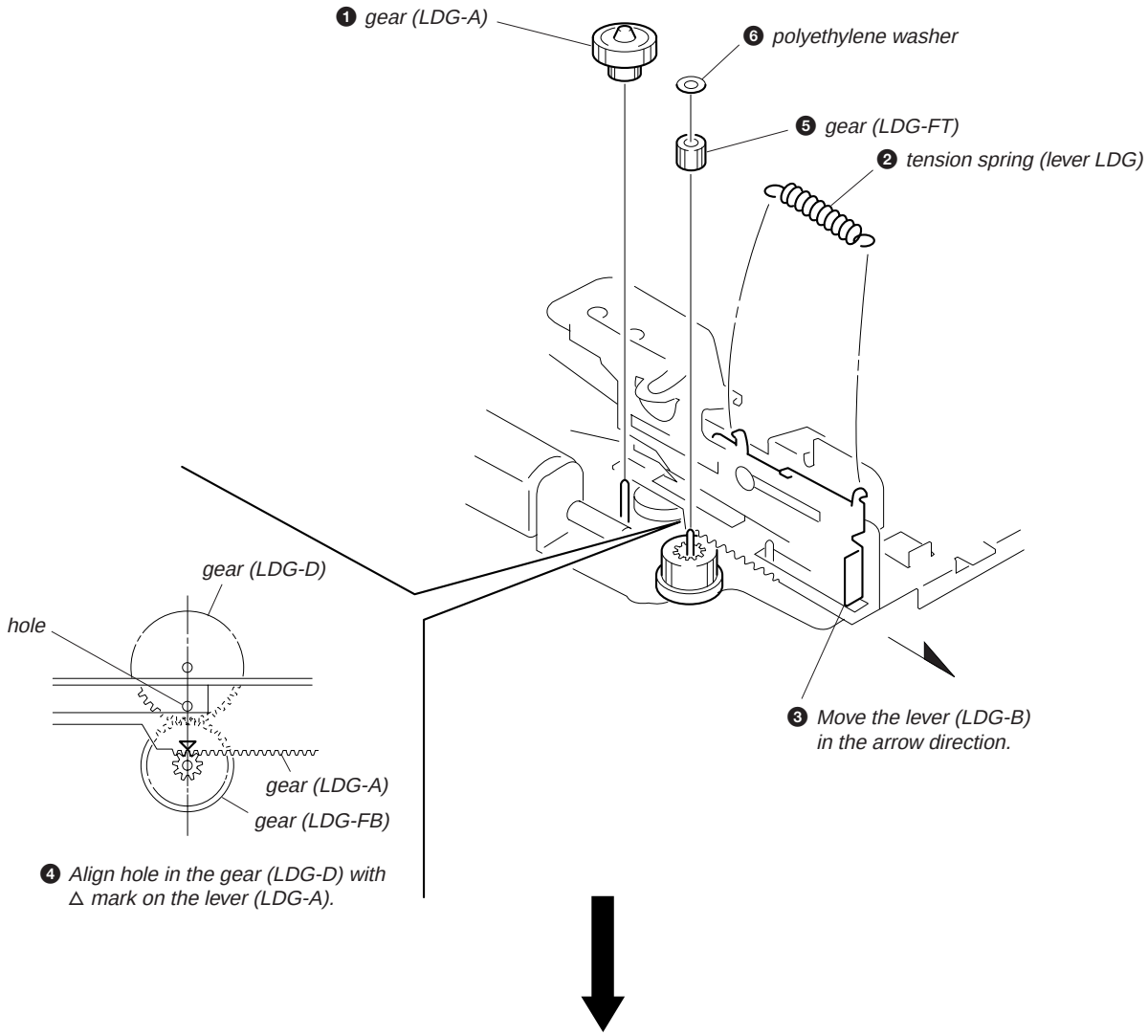
ARM (SUCTION)



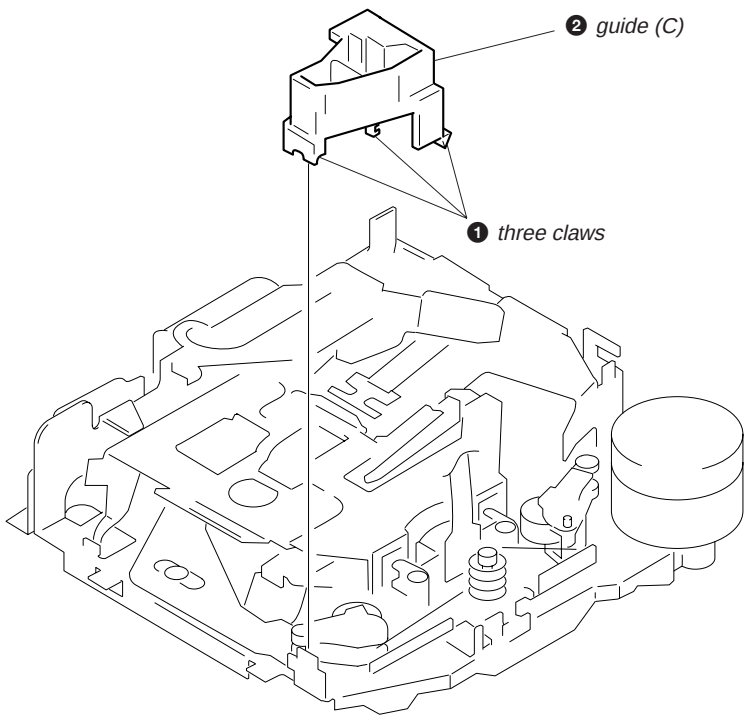
LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shaft Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ two type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install.

GEAR (LDG-FT)


❶ gear (LDG-A)
❻ polyethylene washer
❺ gear (LDG-FT)
❷ tension spring (lever LDG)
gear (LDG-D)
hole
gear (LDG-A)
gear (LDG-FB)
❸ Move the lever (LDG-B) in the arrow direction.
❹ Align hole in the gear (LDG-D) with △ mark on the lever (LDG-A).

GUIDE (C)



SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4V) unless otherwise noted.

• Torque Measurement

Mode	Torqu Meter	Meter Reading
Forward	CQ-102C	35–65 g•cm (0.49–0.90 oz•inch)
Forward Back Tension	CQ-102C	0.5–5.0 g•cm (0.01–0.07 oz•inch)
Reverse	CQ-102RC	35–65 g•cm (0.49–0.90 oz•inch)
Reverse Back Tension	CQ-102RC	0.5–5.0 g•cm (0.01–0.07 oz•inch)
FF, REW	CQ-201B	60–200 g•cm (0.83–2.78 oz•inch)

• Tape Tension Measurement

Mode	Torqu Meter	Meter Reading
Forward	CQ-403A	more than 60 g (more than 2.12 oz)
Reverse	CQ-403R	

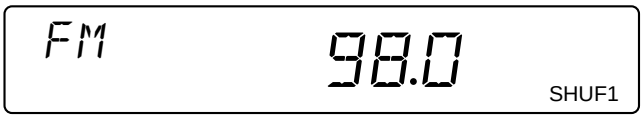
SECTION 5
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and MW Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>
1. Set the “OFF” mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Push the [SOURCE] button, the test mode is set.

display



<Release the Test mode>
1. Push the “OFF” button.

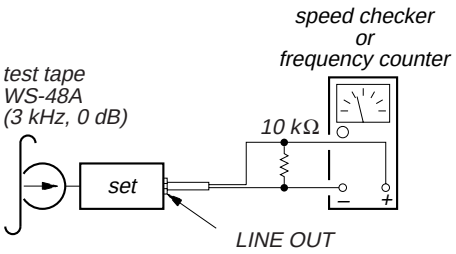
See the adjustment location from on page 21 for the adjustment.

TAPE DECK SECTION | **0 dB=0.775 V**

Tape Speed Adjustment

Procedure:

1. Put the set into the FWD PB mode.



Specification: Constant speed

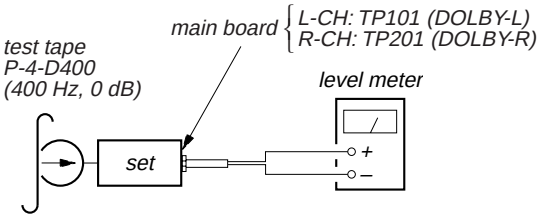
Speed checker	Frequency counter
–1.5 to +2.5%	2,955 to 3,075 Hz

Adjustment Location: See page 21.

DOLBY Level Adjustment

Setting:

Preset 3 (DOLBY) button	:	OFF
SEL (BAS) button	:	Center
SEL (TRE) button	:	Center
SEL (BAL) button	:	Center
SEL (FAD) button	:	Center
SEL (VOL) button	:	Maximum
D-BASS control	:	OFF



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV121 (L-CH) and RV221 (R-CH) so that the level meter reading is –6 ± 0.5 dB (0.37 to 0.41 V).

Adjustment Location: See page 21.

TUNER SECTION | **0 dB=1 µV**

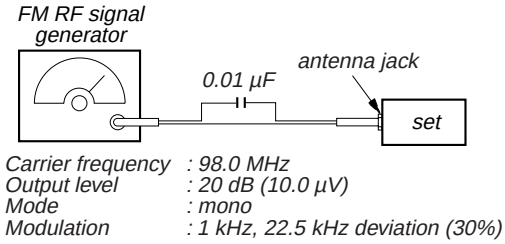
Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

FM Auto Scan/Stop Level Adjustment

Setting:

SOURCE button: FM

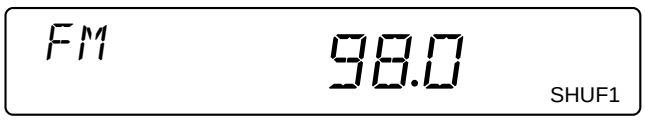


Carrier frequency : 98.0 MHz
Output level : 20 dB (10.0 µV)
Mode : mono
Modulation : 1 kHz, 22.5 kHz deviation (30%)

Procedure:

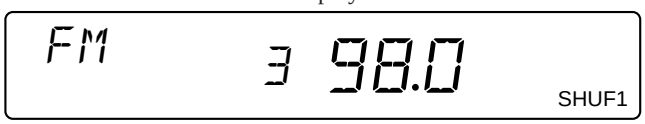
1. Set to the test mode. (See page 17).

Display



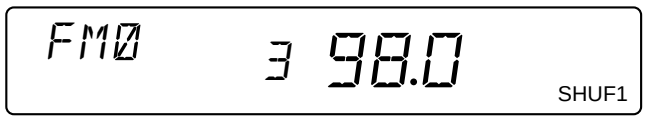
2. Push the preset 3 button.

Display



3. Adjust with the volume RV2 on TU1 so that the “FM” indication turns to “FM0” indication on the display window.
   But, in case of already indicated “FM0”, turn the RV2 so that put out light “0” indication and adjustment.

Display

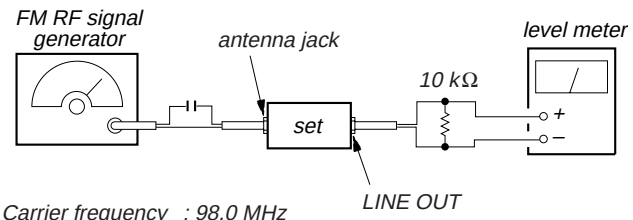


Adjustment Location: See page 21.

FM Stereo Separation Adjustment

Setting:

SOURCE button: FM



Carrier frequency : 98.0 MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main: 1 kHz, 33.75 kHz deviation (45%)
sub: 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot: 7.5 kHz deviation (10%)

Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ
R-CH Stereo separation: Ⓒ-Ⓓ
The separations of both channels should be equal.

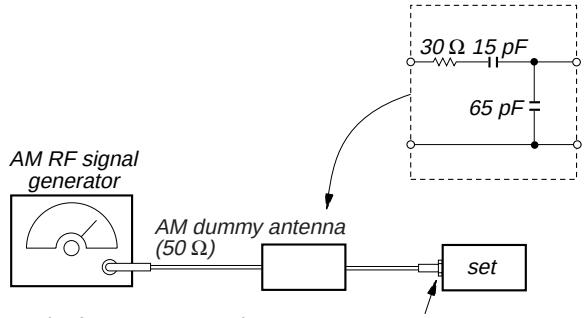
Specification: Separation more than 26 dB

Adjustment Location: See page 21.

MW Auto Scan/Stop Level Adjustment

Setting:

SOURCE and MODE button: MW

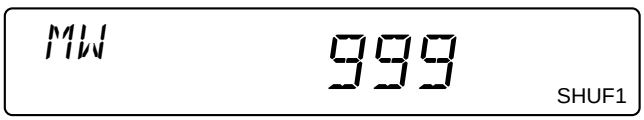


Carrier frequency : 999 kHz
30% amplitude modukation by 1 kHz signal
Output level : 33 dB (44.7 µV)

Procedure:

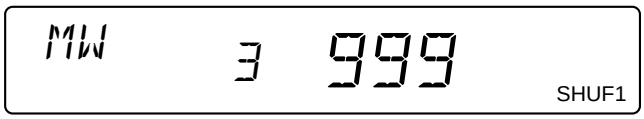
1. Set to the test mode. (See page 17.)
2. Push the MODE button and set to MW.

Display



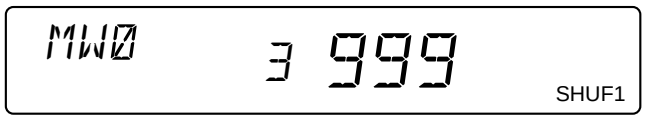
3. Push the preset 3 button.

Display



4. Adjust with the volume RV1 on TU1 so that the “MW” indication turns to “MW0” indication on the display window. But, in case of already indicated “MW0”, turn the RV1 so that put out light “0” indication and adjustment.

Display

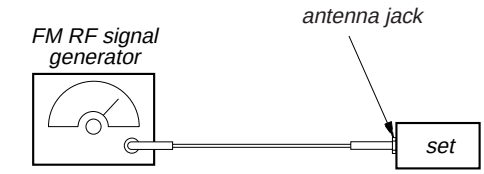


Adjustment Location: See page 21.

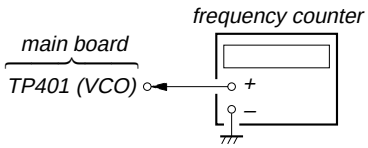
FM Polar VCO Adjustment

Setting:

SOURCE button: FM



Carrier frequency : 69.5 MHz (FM2: 3CH)
Output level : 60 dB (1 mV)



Procedure:

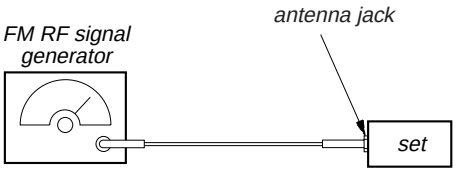
1. Connect the frequency counter to the TP401 (VCO) on main board.
2. Adjust RV402 so that the reading on the frequency counter becomes to 31.25 ± 0.1 kHz.

Adjustment Location: See page 21.

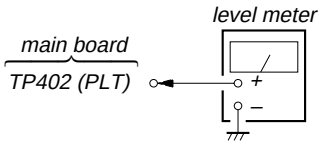
FM Polar Pilot Adjustment

Setting:

SOURCE button: FM



Carrier frequency : 69.5 MHz (FM2: 3CH)
Output level : 60 dB (1 mV)

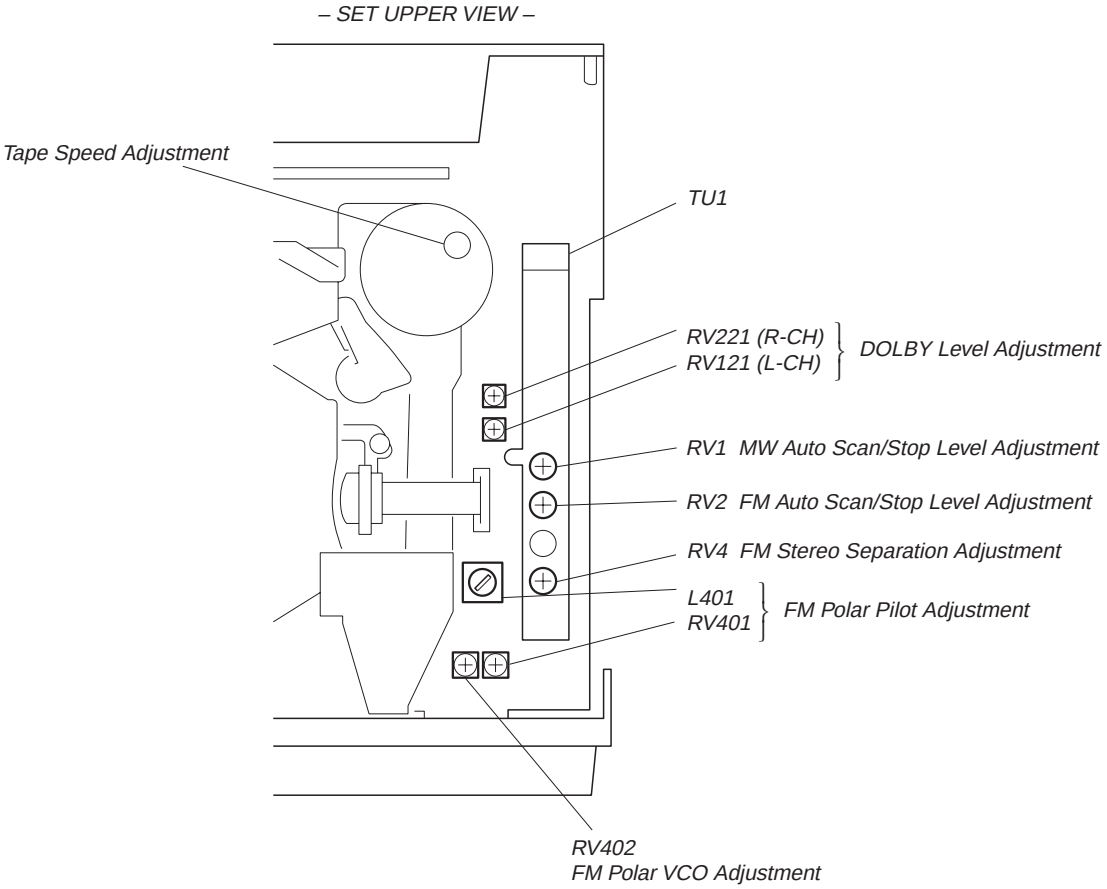


Procedure:

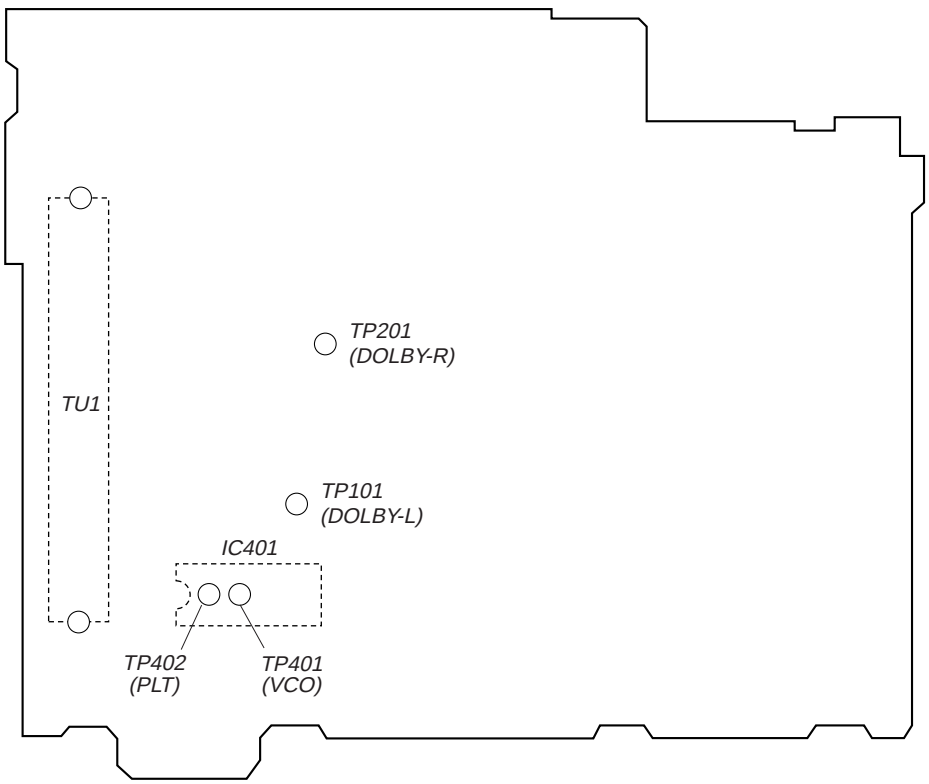
1. Connect the level meter to the TP402 (PLT) on main board.
2. Set the modulation frequency of the FM RF signal generator to 1 kHz (10 kHz div.)
3. Then output level is supposing that 0 dB.
4. Set the modulation frequency of the FM RF signal generator to 31.25 kHz (10 kHz div.).
5. Adjust L401 so tha the reading on the level meter becomes to maximum.
6. Adjust RV401 so that the reading on the level meter becomes to 13.0 ± 0.5 dB.

Adjustment Location: See page 21.

Adjustment Location:



[MAIN BOARD] (CONDUCTOR SIDE)



SECTION 6
DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTION

MAIN BOARD IC701 µPD78058GC-464-3B9 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function
1	DSEL1	I	Destination setting terminal (fixed at center voltage)
2	RCIN0	I	Rotary remote commander shift key A/D input terminal
3	SD_IN	I	Station detector detect input from the FM/AM tuner unit (TU1) Stop level for SEEK, BTM, etc. is determined SD is present at input of "H"
4	AVSS	—	Ground terminal (for A/D converter)
5	$\overline{ST}$	I/O	Input of FM stereo detection signal from FM/AM tuner unit (TU1), and output of forced monaural control signal to FM/AM tuner unit (TU1) (Commonly used for stereo display input and forced monaural output) FM stereo detection at input of "L", forced monaural at output of "L"
6	PLL-CE	O	PLL serial chip enable output to the FM/AM PLL (IC31)
7	AVREF	I	Reference voltage (+5V) input terminal (for D/A converter)
8	PLLSI	I	PLL serial data input from the FM/AM PLL (IC31)
9	PLLSO	O	PLL serial data output to the FM/AM PLL (IC31)
10	PLLCKO	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC31)
11	$\overline{P\text{-}ST.IN}$	I	Polar stereo signal input from the polar multiplexer (IC401)
12	LCDSO	O	Serial data output to the liquid crystal display driver (IC901)
13	LCDCKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC901)
14	LCD-CE	O	Chip enable output to the liquid crystal display driver (IC901)
15	$\overline{LCD\text{-}INH}$	O	Blank indicate control signal output to the liquid crystal display driver (IC901) "L": no display
16	UNI-SI	I	Serial data input from the bus interface (IC571) (for SONY bus)
17	UNI-SO	O	Serial data output to the bus interface (IC571) (for SONY bus)
18	UNI-CKI	I	Serial data reading clock signal input terminal
19	UNI-CKO	O	Serial data transfer clock signal output to the bus interface (IC571) (for SONY bus)
20	$\overline{BUS\text{-}ON}$	O	Bus on/off control signal output to the bus interface (IC571) (for SONY bus) "L": bus on
21	$\overline{SYS\text{-}RST}$	O	Reset signal output to the bus interface (IC571) (for SONY bus) "L": reset
22	AMPON	O	Standby control signal output to the power amplifier (IC471)
23	$\overline{AMP\text{-}MUTE}$	O	Muting control signal output to the power amplifier (IC471)
24	TUN-ON	O	Tuner system power supply on/off control signal output to the BA3918 (IC601) "H": tuner on
25	FM-ON	O	FM system power supply on/off control signal output to the BA3918 (IC601) "H": FM on
26	PW-ON	O	Main system power supply on/off control signal output to the BA3918 (IC601) "H": power on
27	COLOR	I	Input terminal to set whether the illumination color change function is present or not "L": illumination color change function is present (fixed at "L")
28	$\overline{AMS\_ON}$	O	Tape auto music sensor control signal output to the CXA2510Q (IC101) "L" is output to lower the gain for audio level at FF/REW
29	REL	I	Reel table rotation detect signal input from the take-up and supply reel sensor
30	MTLIN	I	Input terminal to set whether the auto metal function is present or not "L": auto metal function is present
31	POS3	I	Tape position detect input from the tape operation switch (S901)
32	POS2	I	
33	GND	—	Ground terminal
34	POS0	I	Tape position detect input from the tape operation switch (S901)
35	POS1	I	

Pin No.	Pin Name	I/O	Function
36	LM_LOD	O	Loading/tape operation motor (M902) control signal output to the MM1322XF (IC651) (For the loading direction and forward side operation) *1
37	LM_EJ	O	Loading/tape operation motor (M902) control signal output to the MM1322XF (IC651) (For the eject direction and reverse side operation) *1
38	N/R_OUT	O	Forward/reverse direction control signal output to the CXA2510Q (IC101) "L": forward direction, "H": reverse direction
39	NC	I	Not used (open)
40	CMON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
41	TAPEON	O	Tape system power supply on/off control signal output terminal "H": tape on
42	COL_SEL	I	Setting terminal for the illumination color "L": amber, "H": green (fixed at "H")
43	RCIN1	I	Rotary remote commander shift key A/D input terminal
44	$\overline{\text{TEST}}$	I	Setting terminal for the test mode "L": test mode (normally fixed at "H")
45	ILL-ON	O	Power supply on/off control signal output terminal at the illumination and liquid crystal display driver (IC901) "H": power on
46	BEEP	O	Beep sound output terminal
47	MUTE	O	Muting control signal output terminal "H": mute on
48	VOLCE	O	Chip enable output to the electrical volume (IC301)
49	SUBCE	O	Chip enable output terminal Not used this set (open)
50	VOLCKO	O	Serial data transfer clock signal output to the electrical volume (IC301)
51	SUBCKO	O	Serial data transfer clock signal output terminal Not used this set (open)
52	VOLSO	O	Serial data output to the electrical volume (IC301)
53	TAPMUT	O	Tape mute on/off control signal output to the CXA2510Q (IC101) "H": tape mute on
54	DOLON	O	Dolby on/off control signal output to the CXA2510Q (IC101) "H": dolby on
55	DOLBC	I	Setting terminal for dolby type "L": dolby B and C type, "H": dolby B type only (fixed at "H")"
56	$\overline{\text{AMSIN}}$	I	Whether a music is present or not from CXA2510Q (IC101) is detected at auto music sensor "L": music is present, "H": music is not present
57	MTL-SEL	O	Tape metal position control signal output to the CXA2510Q (IC101) "H": metal on
58	$\overline{\text{AD\_ON}}$	O	Power supply on/off control signal output for the A/D converter "L": power on
59	RAMBU	I	Internal RAM reset detection signal input Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 100msec after reset
60	$\overline{\text{RESET}}$	I	System reset signal input "L" is input for several 100msec after power on, then it changes to "H"
61	SIRCS	I	Sircs signal input terminal Not used this set (fixed at "H")
62	BUIN	I	Battery detect signal input terminal "H": battery on
63	PW-SEL	I	Power select switch input terminal "L": off (halt mode), "H": on (operation mode)
64	$\overline{\text{ACCIN}}$	I	Accessory detect signal input terminal "L": accessory on
65	$\overline{\text{NOSESW}}$	I	Detects the removal of the attaching and removing type front panel block "L": attaching
66	$\overline{\text{TELMUTE}}$	I	Telephone mute signal input terminal At input of "L", the signal is attenuated by –20dB
67	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "L"
68	VDD	—	Power supply terminal (+5V)
69	X_OUT	O	Main system clock output terminal (5MHz)
70	X_IN	I	Main system clock input terminal (5MHz)
71	GND	—	Ground terminal

Pin No.	Pin Name	I/O	Function
72	XT_OUT	O	Sub system clock output terminal Not used this set (open)
73	XT_IN	I	Sub system clock input terminal Not used this set (fixed at “L”)
74	AVDD	—	Power supply terminal (+5V) (for A/D converter)
75	AVREF	I	Reference voltage input terminal (+5V) (for A/D converter)
76	KEYIN	I	Key input terminal (A/D input)
77	KEYIN1	I	Key input terminal (A/D input)
78	D-BASS	I	D-BASS switch (SW970) input (A/D input)
79	VSM	I	FM and AM signal meter voltage detection input from the FM/AM tuner unit (TU1)
80	DSEL0	I	Setting terminal for the key

*1 motor control

MODE / TERMINAL	STOP	LOADING/ FORWARD	EJECT/ REVERSE	BRAKE
LM_LOD (pin㊱)	“L”	“H”	“L”	“H”
LM_EJ (pin㊲)	“L”	“L”	“H”	“H”

6-2. PRINTED WIRING BOARDS – MAIN Section –

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	E-10	IC601	D-21
D31	E-15	IC651	F-2
D51	C-14	IC701	H-4
D321	E-16		
D331	F-20	Q1	H-13
D332	F-20	Q32	D-8
D371	B-16	Q51	C-8
D372	C-17	Q52	D-10
D375	C-17	Q171	B-7
D421	I-7	Q181	B-8
D422	I-7	Q271	B-8
D423	E-9	Q281	B-7
D551	I-7	Q331	G-2
D552	G-2	Q332	G-3
D553	H-21	Q333	G-3
D554	H-21	Q334	F-3
D571	C-20	Q335	F-4
D572	C-21	Q371	D-4
D601	C-18	Q372	B-7
D602	C-18	Q374	C-5
D603	E-20	Q401	G-7
D604	D-19	Q420	H-7
D605	C-18	Q421	H-7
D621	H-21	Q422	H-7
D743	G-5	Q423	H-7
D744	G-5	Q551	I-6
		Q552	I-6
IC31	D-9	Q601	E-4
IC101	F-8	Q602	D-4
IC301	E-6	Q623	H-2
IC401	H-15	Q624	H-2
IC402	G-6	Q625	I-21
IC403	H-6	Q626	I-21
IC571	D-3		

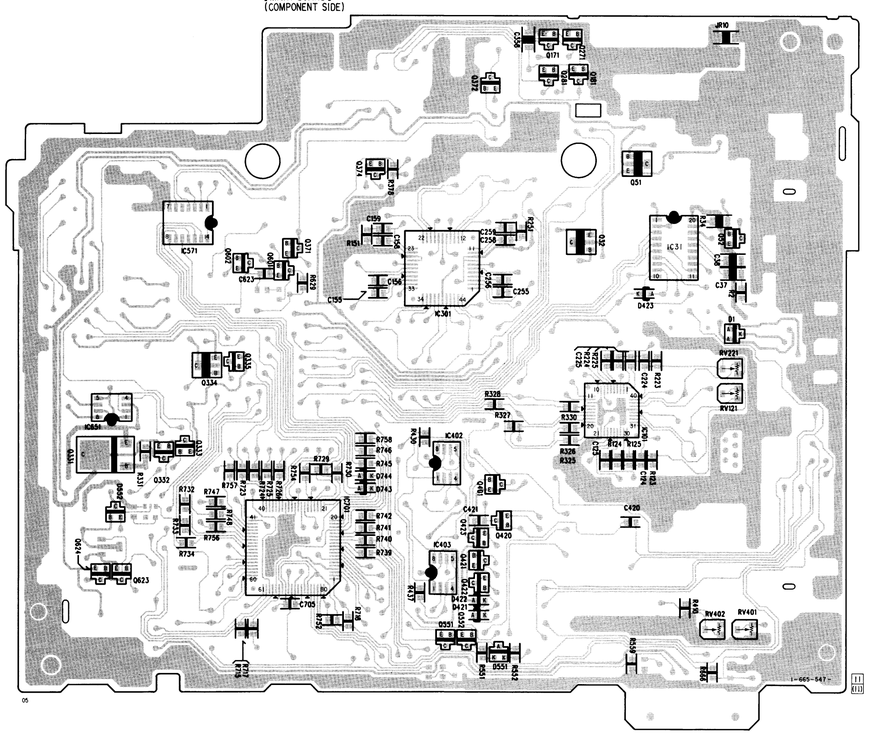
Note on Printed Wiring Board:

- ○—— : parts extracted from the component side.
- △ : internal component.
- ▒▒ : Pattern from the side which enables seeing.

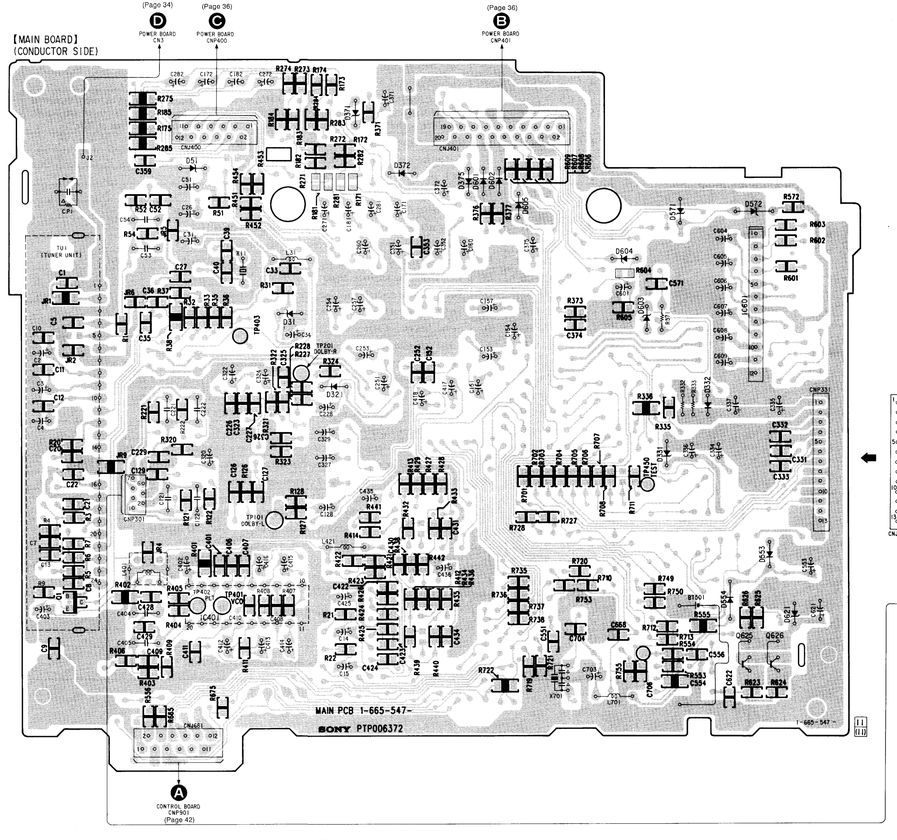
(The other layers' patterns are not indicated.)

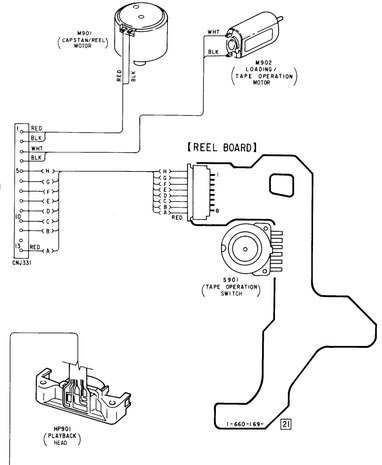
Caution:
Pattern face side: (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side) Parts on the parts face side seen from the parts face are indicated.

【MAIN BOARD】
(COMPONENT SIDE)

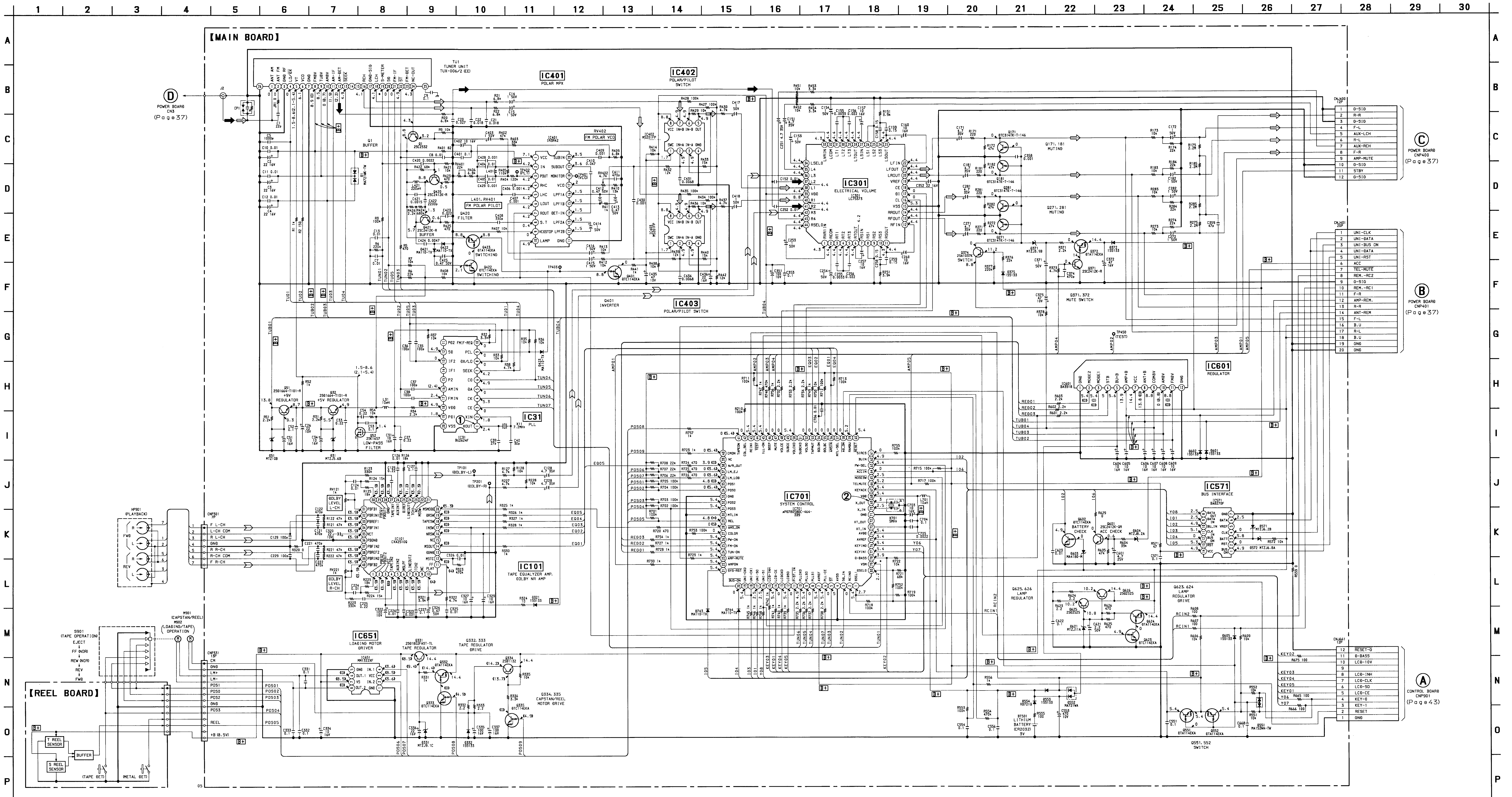


【MAIN BOARD】
(CONDUCTOR SIDE)



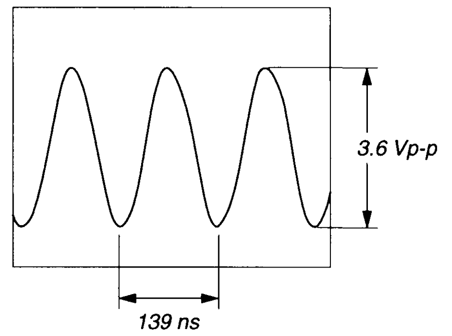


6-3. SCHEMATIC DIAGRAM – MAIN Section – • See page 45 for IC Block Diagrams

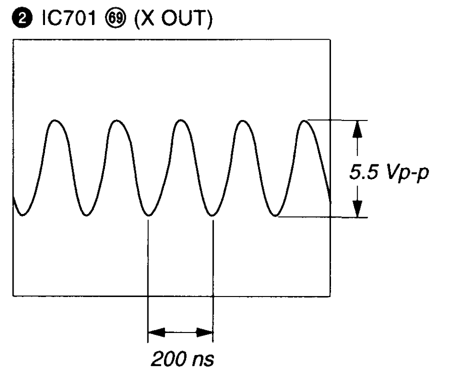


• Waveforms

❶ IC31 ① (X OUT)



❷ IC701 ⑱ (X OUT)



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¹/₄ W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from ACC and BATT terminals.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  << >> : PB (TAPE)
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : MW
  ⊃ : PB (TAPE)

• Semiconductor Location

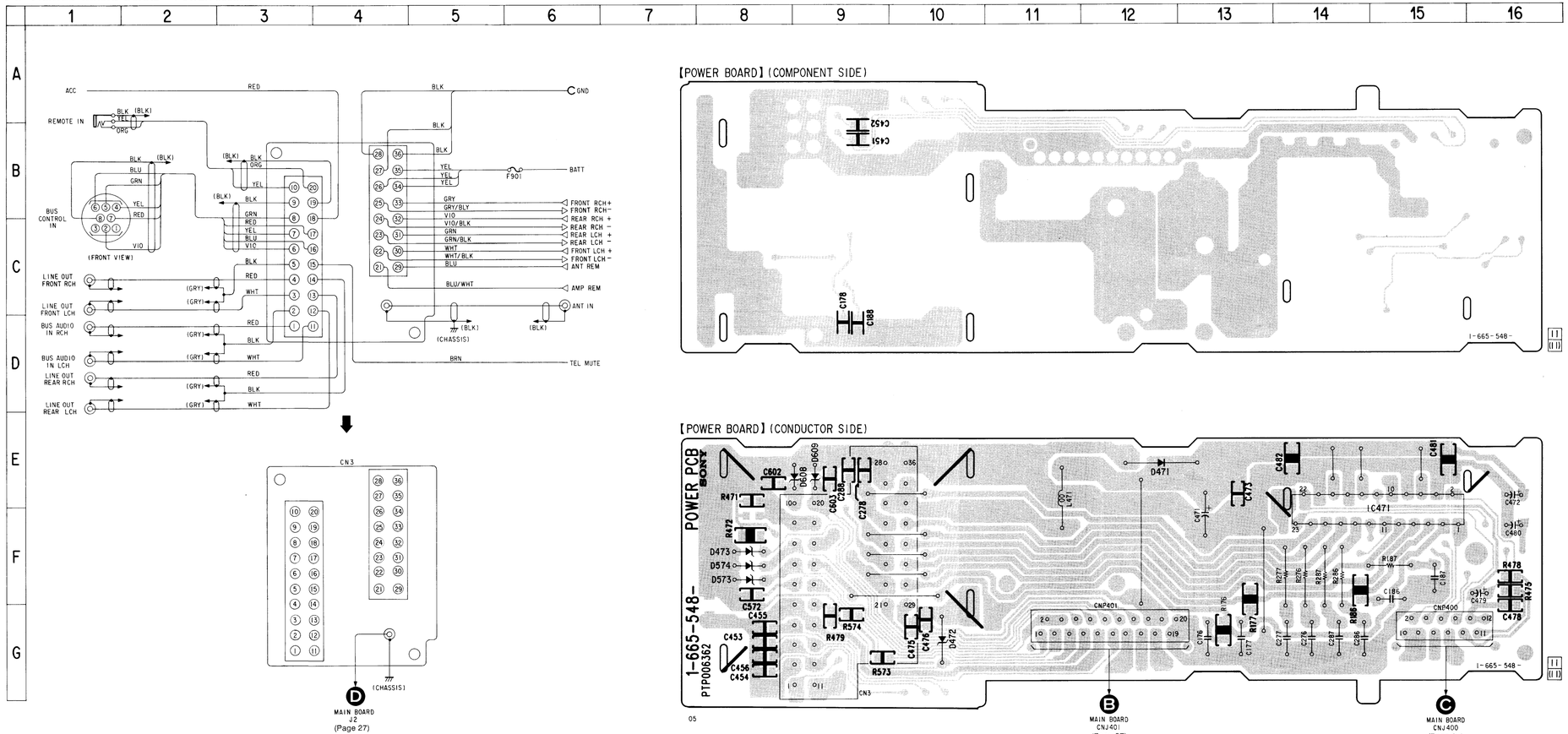
Ref. No.	Location
D471	E-12
D472	G-10
D473	F-8
D573	F-8
D574	F-8
D608	E-9
D609	E-9
IC471	F-15

Note on Printed Wiring Board:
- ⟵ : parts extracted from the component side.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

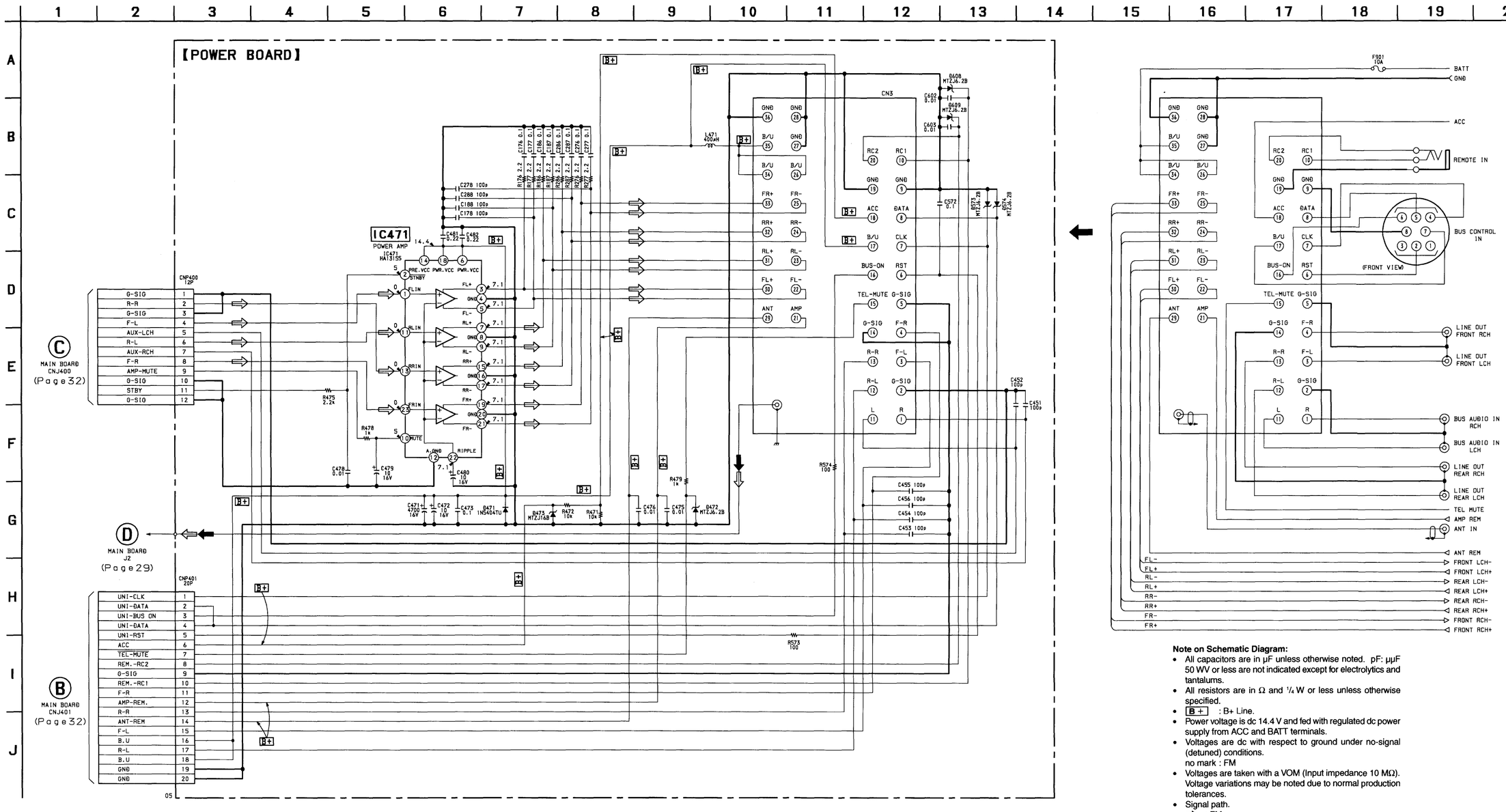
6-4. PRINTED WIRING BOARD – POWER Section –



【POWER BOARD】(COMPONENT SIDE)

【POWER BOARD】(CONDUCTOR SIDE)

6-5. SCHEMATIC DIAGRAM – POWER Section –



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from ACC and BATT terminals.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ➡ : MW

• **Semiconductor Location**

Ref. No.	Location
D901	B-9
IC901	C-6
Q901	C-3
Q902	C-2
Q903	B-3
Q904	C-2

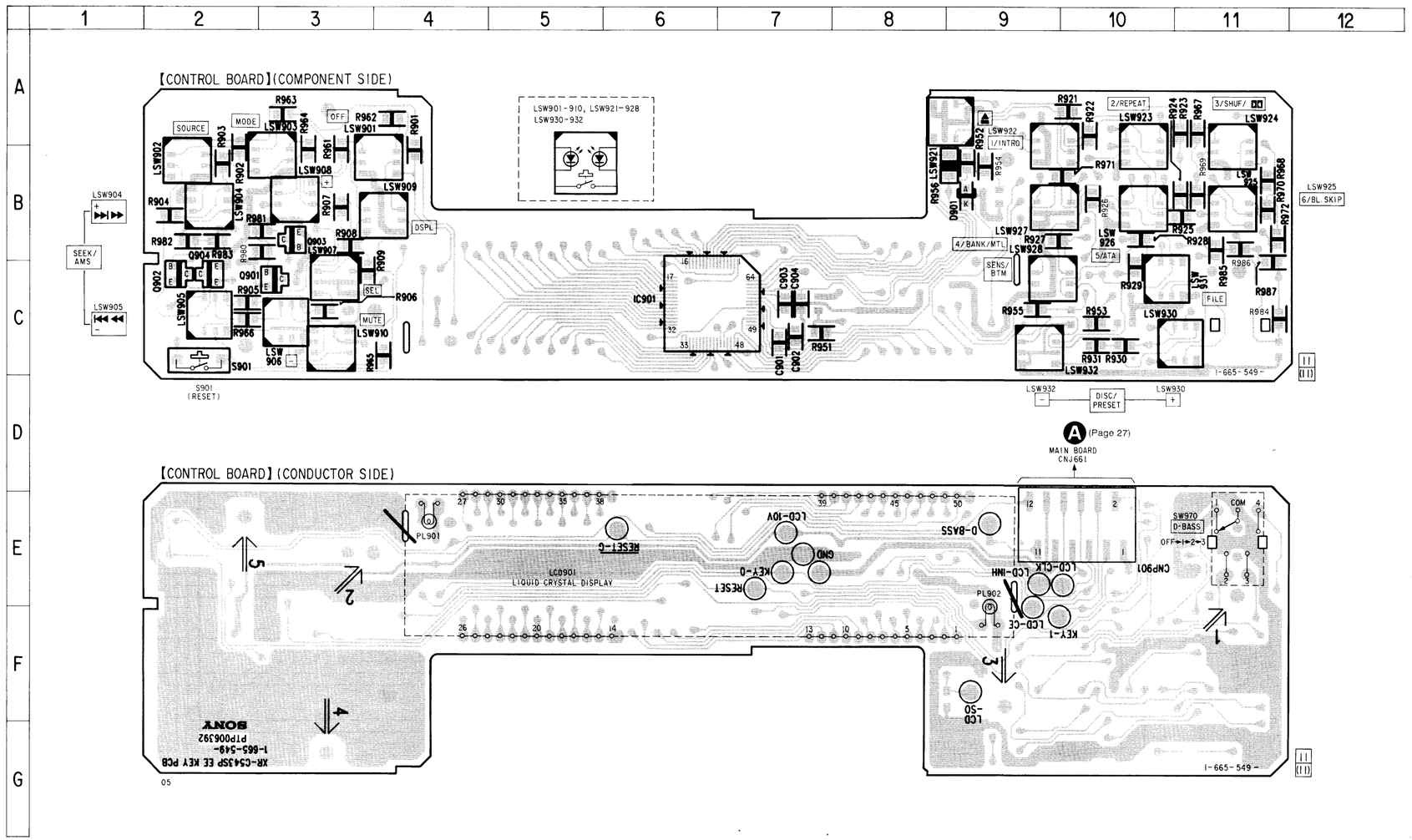
Note on Printed Wiring Board:

- ⟷ : parts extracted from the component side.
- ▒ : Pattern from the side which enables seeing.

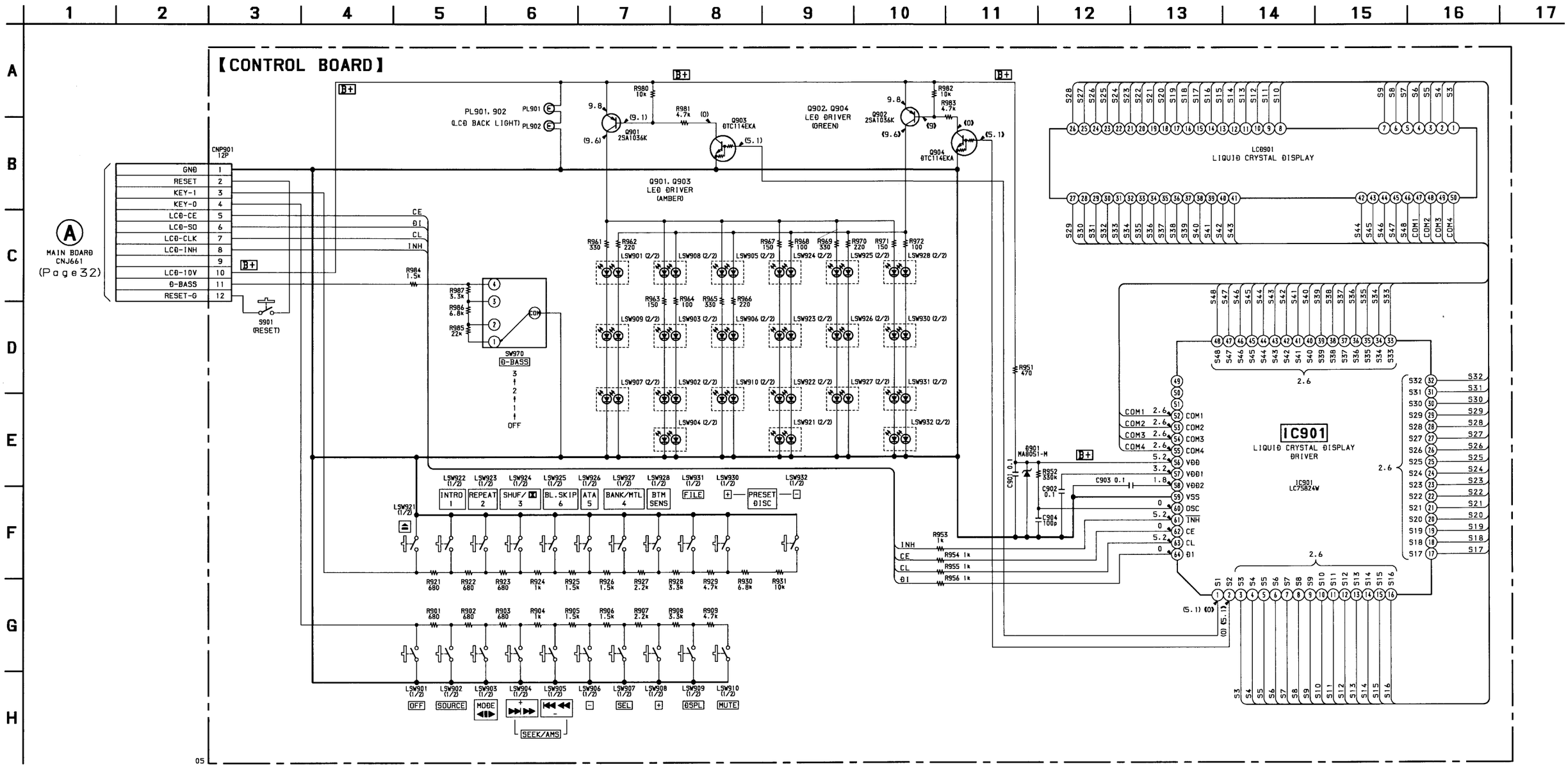
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

6-6. PRINTED WIRING BOARD – CONTROL Section –



6-7. SCHEMATIC DIAGRAM – CONTROL Section –

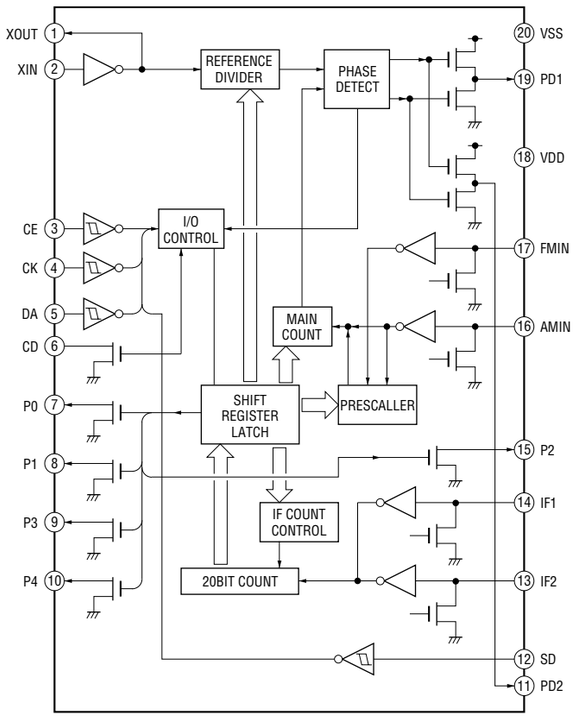


Note on Schematic Diagram:

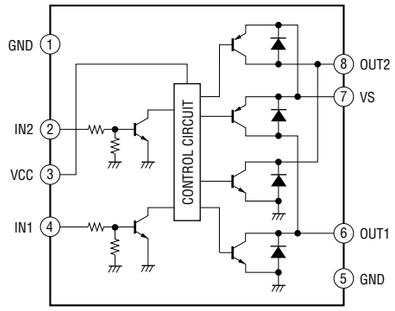
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from ACC and BATT terminals.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AMBER
  << >> : GREEN
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

• IC Block Diagrams

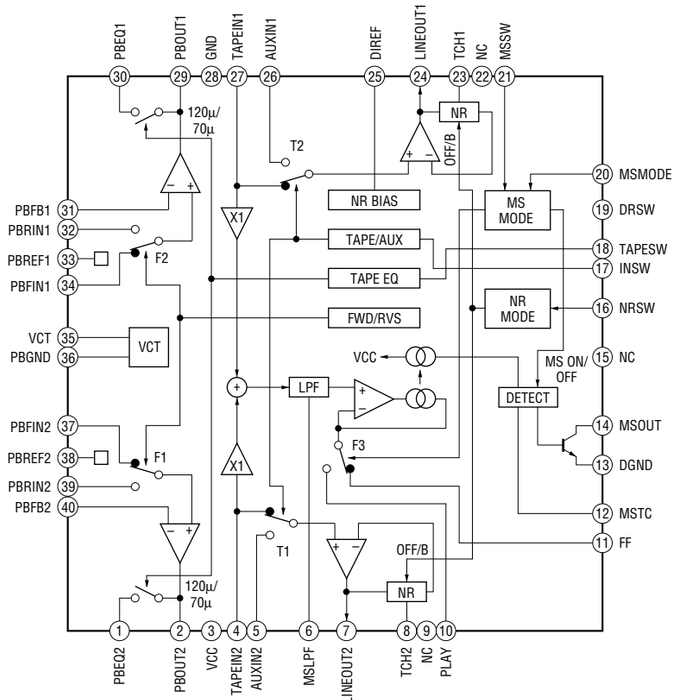
IC31 BU2624F-E2



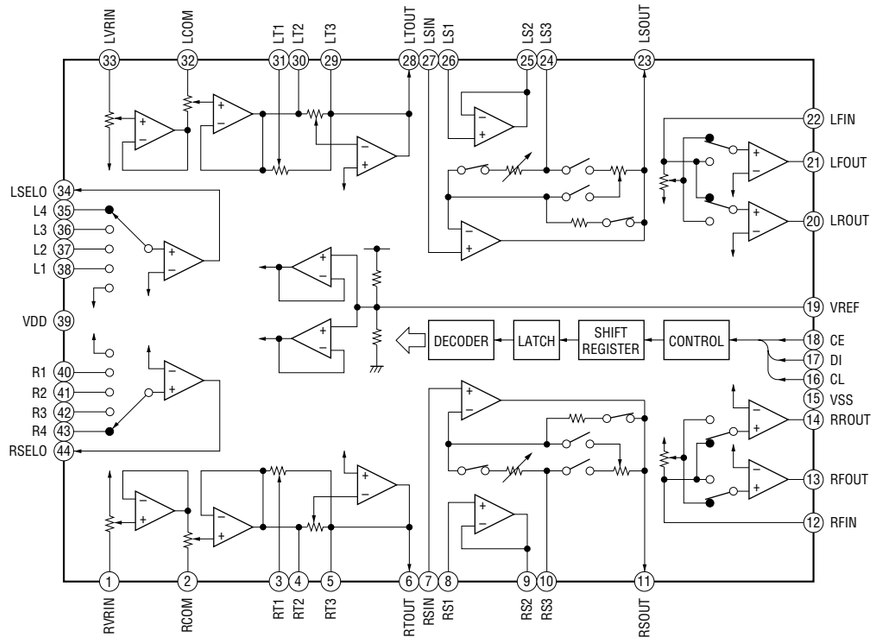
IC651 MM1322XFBE



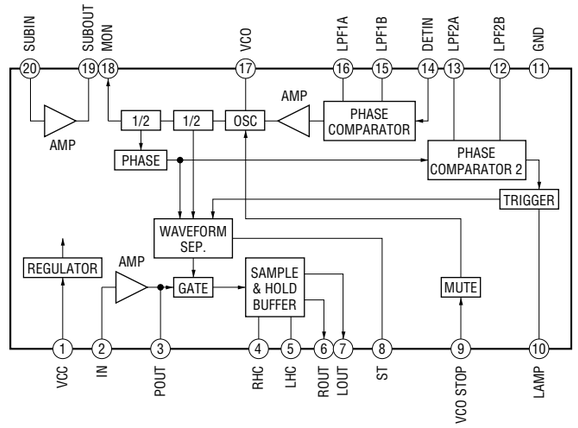
IC101 CXA2510AQ-T4



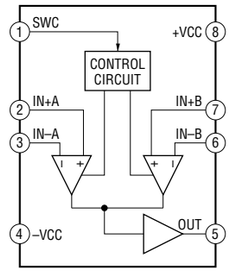
IC301 LC75373ED



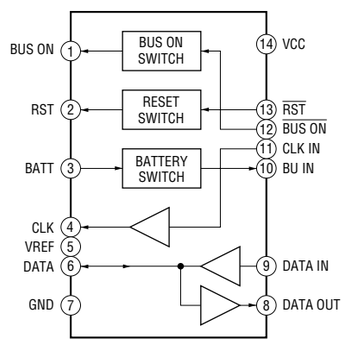
IC401 IR3R42



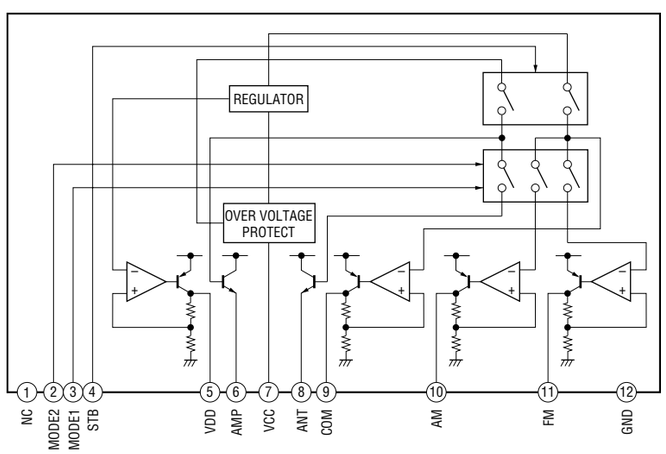
IC402, 403 M5201FP



IC571 BA8270F-E2



IC601 BA3918-V2

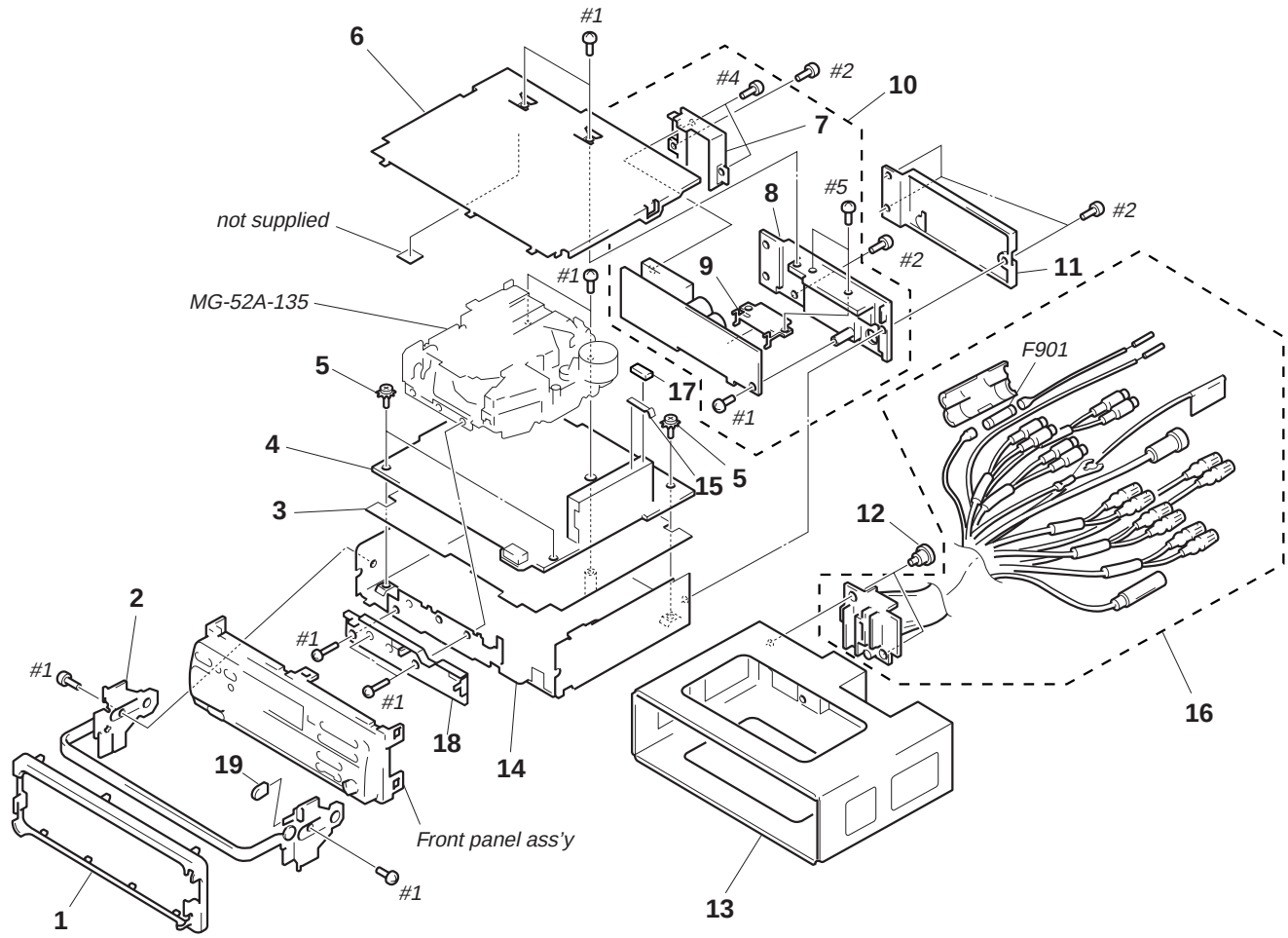


SECTION 7
EXPLODED VIEWS

NOTE:

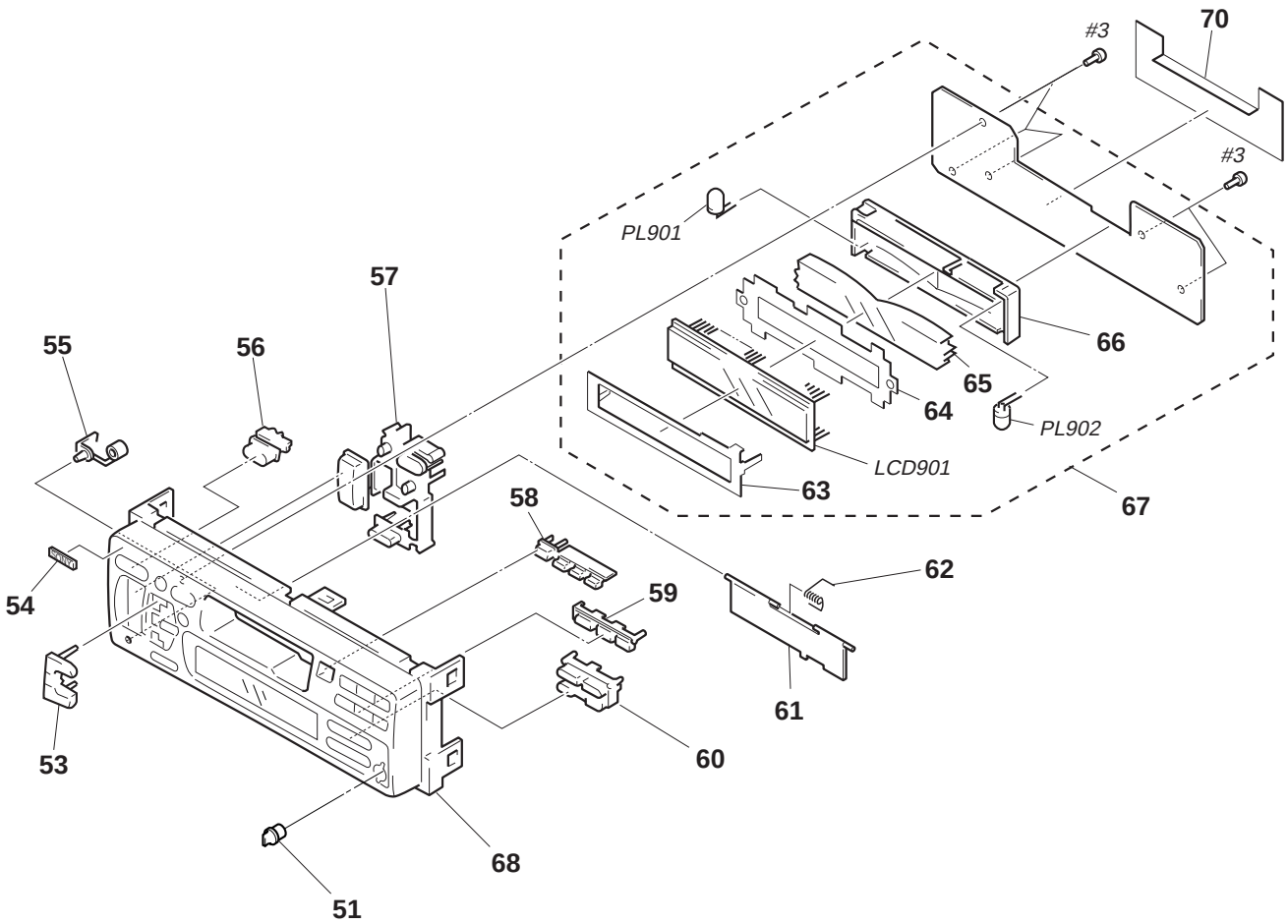
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) CHASSIS SECTION



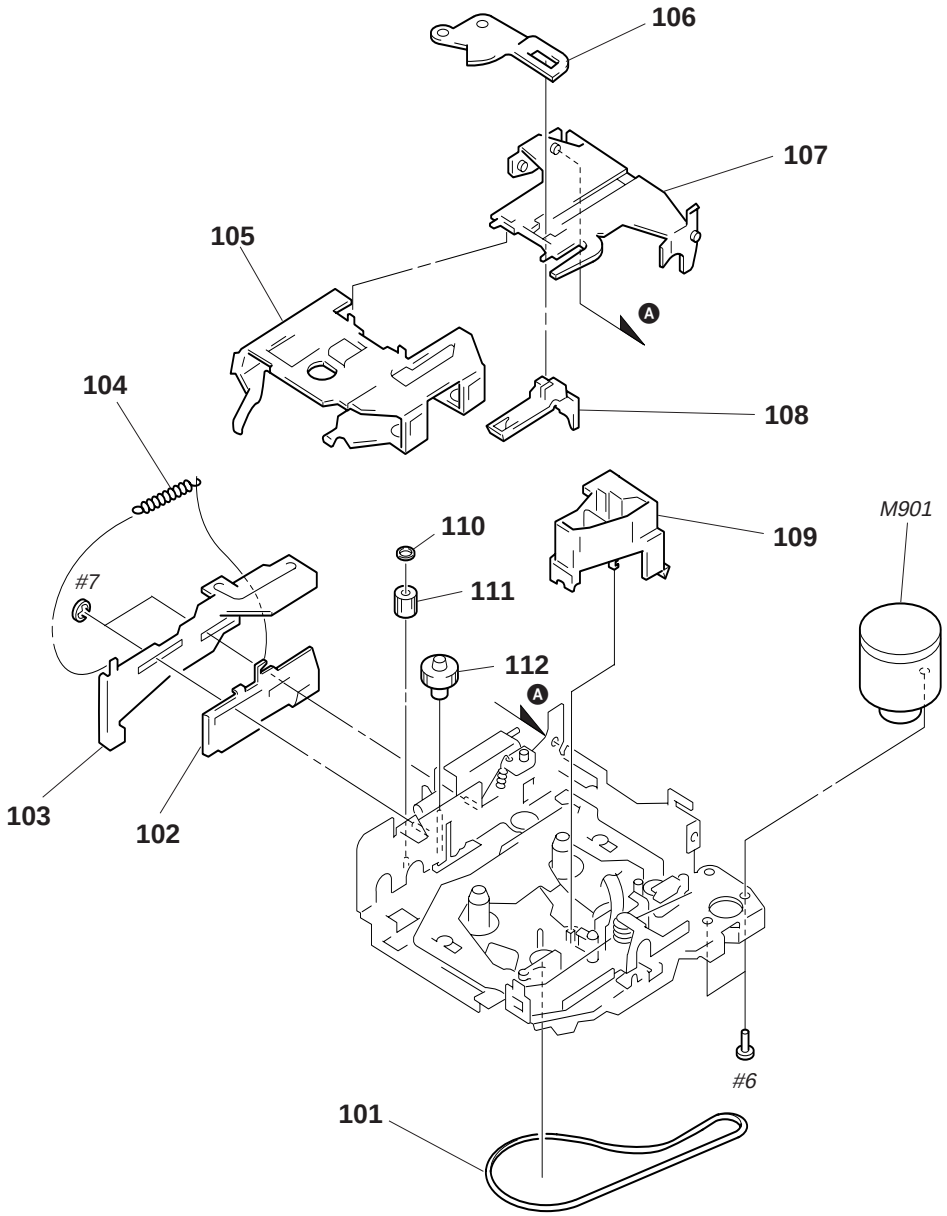
Ref. No.	Part No.	Description	Remark
1	3-012-567-01	COLLAR (A)	
2	X-3372-126-1	HANDLE ASSY	
* 3	3-012-574-01	INSULATOR	
* 4	A-3313-057-A	MAIN BOARD, COMPLETE	
5	3-915-923-01	SCREW, GROUND POINT	
* 6	3-012-565-01	COVER	
* 7	3-012-568-01	BRACKET (CONNECTOR)	
* 8	3-012-569-01	HEAT SINK	
* 9	3-012-566-01	BRACKET (IC)	
* 10	A-3313-059-A	POWER BOARD, COMPLETE	
11	3-012-575-01	PANEL (REAR)	
12	3-340-614-11	SCREW (JACK), STEP	
13	3-012-593-01	BRACKET	
* 14	X-3373-590-1	CHASSIS ASSY	
15	3-937-650-01	PLATE (C), GROUND	
16	1-782-345-11	CORD (WITH CONNECTOR)	
17	9-911-840-XX	CUSHION (U)	
* 18	3-014-628-01	CHASSIS, FRONT	
19	3-012-577-01	BUTTON (RELEASE)	
F901	1-532-677-00	FUSE, GLASS TUBE (10 A)	

(2) FRONT PANEL SECTION



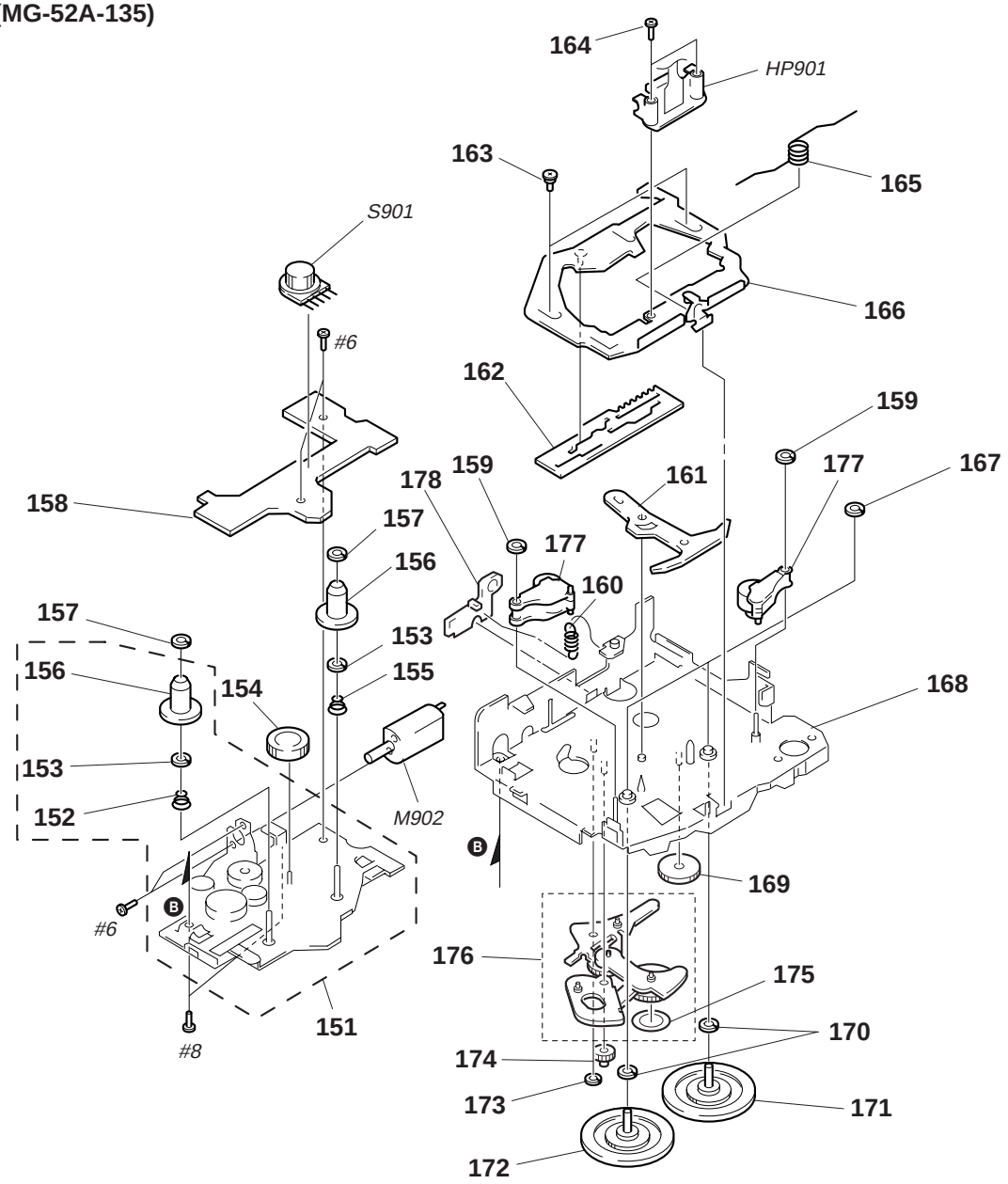
Ref. No.	Part No.	Description	Remark
51	3-009-301-01	BUTTON (BASS)	
53	3-009-299-01	BUTTON (L2) (+.–)	
54	3-904-194-01	EMBLEM (NO. 2.5), SONY	
55	3-012-576-01	BUTTON (RESET)	
56	3-009-300-01	BUTTON (SOURCE)	
57	3-009-297-01	BUTTON (L)	
		(●. OFF. + ▶▶I ▶▶. SEEK AMS. I◀◀ ◀◀ –. SEL. MUTE)	
58	3-009-308-01	BUTTON (1-3) (⏏. 1. 2. 3)	
59	3-009-309-11	BUTTON (4-6) (4. 5. 6)	
60	3-009-313-01	BUTTON (R) (S) (SENS. FILE. – DISC +)	
61	3-932-205-11	DOOR, CASSETTE	
62	3-935-003-01	SPRING, TORSION	
* 63	3-010-282-01	PLATE (LCD), GROUND	
* 64	3-009-305-11	SHEET (REFLECTOR)	
* 65	3-009-302-01	PLATE (LCD), LIGHT GUIDE	
* 66	3-009-303-01	HOLDER (LCD)	
* 67	A-3294-275-A	CONTROL BOARD, COMPLETE	
68	X-3374-099-1	PANEL SUB ASSY	
* 70	3-016-107-01	SHEET (F)	
LCD901	1-801-587-11	DISPLAY PANEL, LIQUID CRYSTAL	
PL901	1-517-633-11	LAMP, PILOT	

(3) MECHANISM DECK SECTION (MG-52A-135)



Ref. No.	Part No.	Description	Remark
PL902	1-517-633-11	LAMP, PILOT	
101	3-928-675-01	BELT (52)	
* 102	3-928-673-01	LEVER (LDG-A)	
103	3-928-674-01	LEVER (LDG-B)	
104	3-933-341-01	SPRING (LEVER LDG), TENSION	
105	3-928-671-01	HOUSING	
* 106	3-933-347-01	ARM (SUCTION)	
107	3-933-340-01	HANGER	
108	3-933-346-01	CATCHER	
109	3-933-344-01	GUIDE (C)	
110	3-341-753-11	WASHER, POLYETHYLENE	
111	3-933-335-01	GEAR (LDG-FT)	
112	3-928-667-01	GEAR (LDG-A)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

(4) MECHANISM DECK SECTION-2 (MG-52A-135)



Ref. No.	Part No.	Description	Remark
151	X-3371-710-1	CHASSIS (S) ASSY	
152	3-933-337-01	SPRING (B-T-R), CONE COIL	
153	3-701-437-01	POLY-SLIDER (A)	
154	3-933-333-01	GEAR (LDG-E)	
155	3-933-339-01	SPRING (B-T-F), CONE COIL	
156	3-933-345-01	GEAR, REEL	
157	3-954-807-01	WASHER	
158	1-660-169-21	REEL BOARD	
159	3-341-752-11	WASHER, POLYETHYLENE	
160	3-933-336-01	SPRING (ARM HANGER), TENSION	
161	3-928-669-01	LEVER (PINCH SELECTION)	
162	3-928-668-01	LEVER (MODE)	
163	3-933-338-01	SCREW (HP), STEP	
164	3-927-100-01	SCREW (+PS 2X10), SPECIAL	
165	3-928-670-01	SPRING (PINCH PRESS)	
* 166	X-3371-712-1	PLATE SUB ASSY, HEAD	
167	3-364-151-01	WASHER	
* 168	X-3371-701-1	CHASSIS (M) SUB ASSY (A)	
169	X-3371-707-1	CLUTCH (PLAY) ASSY	
170	3-701-437-21	WASHER	
171	3-930-932-01	FLYWHEEL (F) (SEF)	
172	A-3291-667-A	CLUTCH (FR) ASSY	
173	3-321-813-01	WASHER, COTTER POLYETHYLENE	
174	3-933-343-01	GEAR (REVERSE)	
175	3-933-383-01	SEAL (32), REFLECTION	
176	X-3371-703-1	LEVER (GEAR) ASSY	
177	X-3371-713-2	LEVER (PINCH) ASSY	
178	X-3371-706-2	ARM (HANGER) ASSY	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M902	A-3291-664-A	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)	

SECTION 8
ELECTRICAL PARTS LIST

CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
*	A-3294-275-A	CONTROL BOARD, COMPLETE **********	
*	3-009-302-01	PLATE (LCD), LIGHT GUIDE	
*	3-009-303-01	HOLDER (LCD)	
*	3-009-305-01	SHEET (REFLECTOR)	
*	3-010-282-01	PLATE (LCD), GROUND	
*	3-012-586-01	INSULATOR (LCD)	
		< CAPACITOR >	
C901	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C902	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C903	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C904	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
		< CONNECTOR >	
CNP901	1-778-960-21	SOCKET, CONNECTOR 12P	
		< DIODE >	
D901	8-719-420-90	DIODE MA8051-M	
		< IC >	
IC901	8-759-365-90	IC LC75824W	
		< LIQUID CRYSTAL DISPLAY >	
LCD901	1-801-587-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< SWITCH >	
LSW901	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (OFF)	
LSW902	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)	
LSW903	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (MODE)	
LSW904	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (+ ▶▶I ▶▶: SEEK/AMS)	
LSW905	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (– I◀◀ ◀◀: SEEK/AMS)	
LSW906	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (–)	
LSW907	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SEL)	
LSW908	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (+)	
LSW909	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (DSPL)	
LSW910	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (MUTE)	
LSW921	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (⏏)	
LSW922	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (1/INTRO)	
LSW923	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (2/REPEAT)	
LSW924	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (3/SHUF/□□)	
LSW925	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (6/BL.SKIP)	
LSW926	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (5/ATA)	
LSW927	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (4/BANK/MTL)	
LSW928	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SENS/BTM)	
LSW930	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (+: DISC/PRESET)	
LSW931	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (FILE)	
LSW932	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (–: DISC/PRESET)	
		< PILOT LAMP >	
PL901	1-517-633-11	LAMP, PILOT	
PL902	1-517-633-11	LAMP, PILOT	
		< TRANSISTOR >	
Q901	8-729-901-97	TRANSISTOR 2SA1036K-Q	
Q902	8-729-901-97	TRANSISTOR 2SA1036K-Q	
Q903	8-729-900-53	TRANSISTOR DTC114EK	
Q904	8-729-900-53	TRANSISTOR DTC114EK	
		< RESISTOR >	
R901	1-216-045-00	METAL CHIP 680	5% 1/10W
R902	1-216-045-00	METAL CHIP 680	5% 1/10W
R903	1-216-045-00	METAL CHIP 680	5% 1/10W
R904	1-216-049-11	METAL CHIP 1K	5% 1/10W
R905	1-216-053-00	METAL CHIP 1.5K	5% 1/10W
R906	1-216-053-00	METAL CHIP 1.5K	5% 1/10W
R907	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
R908	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
R909	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R921	1-216-045-00	METAL CHIP 680	5% 1/10W
R922	1-216-045-00	METAL CHIP 680	5% 1/10W
R923	1-216-045-00	METAL CHIP 680	5% 1/10W
R924	1-216-049-11	METAL CHIP 1K	5% 1/10W
R925	1-216-053-00	METAL CHIP 1.5K	5% 1/10W
R926	1-216-053-00	METAL CHIP 1.5K	5% 1/10W
R927	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
R928	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
R929	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R930	1-216-069-00	METAL CHIP 6.8K	5% 1/10W
R931	1-216-073-00	METAL CHIP 10K	5% 1/10W
R951	1-216-041-00	METAL CHIP 470	5% 1/10W
R952	1-216-109-00	METAL CHIP 330K	5% 1/10W
R953	1-216-049-11	METAL CHIP 1K	5% 1/10W
R954	1-216-049-11	METAL CHIP 1K	5% 1/10W
R955	1-216-049-11	METAL CHIP 1K	5% 1/10W
R956	1-216-198-00	METAL CHIP 1K	5% 1/8W

CONTROL **MAIN**

Ref. No.	Part No.	Description			Remark
R961	1-216-037-00	METAL CHIP	330	5%	1/10W
R962	1-216-033-00	METAL CHIP	220	5%	1/10W
R963	1-216-029-00	METAL CHIP	150	5%	1/10W
R964	1-216-025-00	METAL CHIP	100	5%	1/10W
R965	1-216-037-00	METAL CHIP	330	5%	1/10W
R966	1-216-033-00	METAL CHIP	220	5%	1/10W
R967	1-216-029-00	METAL CHIP	150	5%	1/10W
R968	1-216-025-00	METAL CHIP	100	5%	1/10W
R969	1-216-037-00	METAL CHIP	330	5%	1/10W
R970	1-216-033-00	METAL CHIP	220	5%	1/10W
R971	1-216-029-00	METAL CHIP	150	5%	1/10W
R972	1-216-025-00	METAL CHIP	100	5%	1/10W
R980	1-216-073-00	METAL CHIP	10K	5%	1/10W
R981	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R982	1-216-073-00	METAL CHIP	10K	5%	1/10W
R983	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R984	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R985	1-216-081-00	METAL CHIP	22K	5%	1/10W
R986	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R987	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
		< SWITCH >			
S901	1-692-431-21	SWITCH, TACTILE (RESET)			
SW970	1-762-937-11	SWITCH, ROTARY (D-BASS)			
**********					
*	A-3313-057-A	MAIN BOARD, COMPLETE			
		**********			
		< BATTERY >			
BT501	1-528-225-31	BATTERY, LITHIUM			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-124-234-00	ELECT	22uF	20%	16V
C3	1-124-234-00	ELECT	22uF	20%	16V
C4	1-124-234-00	ELECT	22uF	20%	16V
C5	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C7	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C10	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C11	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C12	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C13	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C14	1-126-160-11	ELECT	1uF	20%	50V
C15	1-126-160-11	ELECT	1uF	20%	50V
C20	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C21	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C22	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C26	1-124-234-00	ELECT	22uF	20%	16V
C27	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C31	1-126-157-11	ELECT	10uF	20%	16V
C33	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C34	1-126-157-11	ELECT	10uF	20%	16V
C35	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C36	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C37	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C38	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C39	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C40	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C51	1-126-157-11	ELECT	10uF	20%	16V
C52	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C53	1-136-165-00	FILM	0.1uF	5%	50V
C54	1-136-169-00	FILM	0.22uF	5%	50V
C121	1-130-469-00	MYLAR	680PF	5%	50V
C122	1-130-469-00	MYLAR	680PF	5%	50V
C124	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C125	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C126	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C127	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C128	1-126-163-11	ELECT	4.7uF	20%	50V
C129	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C151	1-126-163-11	ELECT	4.7uF	20%	50V
C152	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C153	1-126-160-11	ELECT	1uF	20%	50V
C154	1-126-160-11	ELECT	1uF	20%	50V
C155	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C156	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C157	1-126-157-11	ELECT	10uF	20%	16V
C158	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C159	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C160	1-126-157-11	ELECT	10uF	20%	16V
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-126-160-11	ELECT	1uF	20%	50V
C181	1-126-163-11	ELECT	4.7uF	20%	50V
C182	1-126-160-11	ELECT	1uF	20%	50V
C221	1-130-469-00	MYLAR	680PF	5%	50V
C222	1-130-469-00	MYLAR	680PF	5%	50V
C224	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C225	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C226	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C227	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C228	1-126-163-11	ELECT	4.7uF	20%	50V
C229	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C251	1-126-163-11	ELECT	4.7uF	20%	50V
C252	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C253	1-126-160-11	ELECT	1uF	20%	50V
C254	1-126-160-11	ELECT	1uF	20%	50V
C255	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C256	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C257	1-126-157-11	ELECT	10uF	20%	16V
C258	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C259	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C260	1-126-157-11	ELECT	10uF	20%	16V
C271	1-126-163-11	ELECT	4.7uF	20%	50V
C272	1-126-160-11	ELECT	1uF	20%	50V
C281	1-126-163-11	ELECT	4.7uF	20%	50V
C282	1-126-160-11	ELECT	1uF	20%	50V
C320	1-128-054-11	ELECT	22uF	20%	10V
C322	1-124-584-00	ELECT	100uF	20%	10V
C323	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C324	1-126-159-11	ELECT	0.47uF	20%	50V
C325	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C326	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C327	1-126-157-11	ELECT	10uF	20%	16V
C329	1-126-157-11	ELECT	10uF	20%	16V

Ref. No.	Part No.	Description			Remark
C331	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C332	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C333	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C334	1-126-157-11	ELECT	10uF	20%	16V
C335	1-126-933-11	ELECT	100uF	20%	16V
C336	1-124-234-00	ELECT	22uF	20%	16V
C337	1-126-933-11	ELECT	100uF	20%	16V
C351	1-124-584-00	ELECT	100uF	20%	10V
C352	1-124-234-00	ELECT	22uF	20%	16V
C353	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C358	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C359	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C371	1-126-160-11	ELECT	1uF	20%	50V
C372	1-124-589-11	ELECT	47uF	20%	16V
C374	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C375	1-124-589-11	ELECT	47uF	20%	16V
C401	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C402	1-126-157-11	ELECT	10uF	20%	16V
C403	1-126-160-11	ELECT	1uF	20%	50V
C404	1-137-522-11	FILM	0.01uF	5%	50V
C405	1-137-150-11	FILM	0.01uF	5%	100V
C406	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C407	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C408	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C409	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C410	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C411	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C412	1-126-159-11	ELECT	0.47uF	20%	50V
C413	1-126-159-11	ELECT	0.47uF	20%	50V
C414	1-126-160-11	ELECT	1uF	20%	50V
C415	1-126-160-11	ELECT	1uF	20%	50V
C416	1-126-160-11	ELECT	1uF	20%	50V
C417	1-126-160-11	ELECT	1uF	20%	50V
C418	1-126-160-11	ELECT	1uF	20%	50V
C420	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C421	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C422	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C423	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C424	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C425	1-126-159-11	ELECT	0.47uF	20%	50V
C428	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C429	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C430	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C431	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C434	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C435	1-124-589-11	ELECT	47uF	20%	16V
C436	1-124-234-00	ELECT	22uF	20%	16V
C551	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C553	1-124-472-11	ELECT	470uF	20%	10V
C554	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C556	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C571	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C601	1-126-163-11	ELECT	4.7uF	20%	50V
C604	1-126-157-11	ELECT	10uF	20%	16V
C605	1-126-157-11	ELECT	10uF	20%	16V
C606	1-126-157-11	ELECT	10uF	20%	16V
C607	1-126-157-11	ELECT	10uF	20%	16V
C608	1-126-157-11	ELECT	10uF	20%	16V
C609	1-126-157-11	ELECT	10uF	20%	16V
C621	1-124-257-00	ELECT	2.2uF	20%	50V
C622	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C623	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C668	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C703	1-126-157-11	ELECT	10uF	20%	16V
C704	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C705	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C706	1-164-232-11	CERAMIC CHIP	0.01uF		50V

< CONNECTOR >

Ref. No.	Part No.	Description
CNJ400	1-770-382-11	CONNECTOR, BOARD TO BOARD 12P
CNJ401	1-770-386-11	CONNECTOR, BOARD TO BOARD 20P
CNJ661	1-770-407-11	CONNECTOR, BOARD TO BOARD 12P
CNP301	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P
* CNP331	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P

< CONPOSITION CIRCUIT BLOCK >

Ref. No.	Part No.	Description
CP1	1-519-504-11	GAP, DISCHARGE

< DIODE >

Ref. No.	Part No.	Description
D1	8-719-040-04	DIODE MA721WK-(TX)
D31	8-719-109-89	DIODE RD5.6ESB2
D51	8-719-110-17	DIODE RD10ESB2
D321	8-719-991-33	DIODE 1SS133T-77
D331	8-719-110-14	DIODE RD9.1ES-B3
D332	8-719-991-33	DIODE 1SS133T-77
D371	8-719-109-72	DIODE RD3.9ES-B2
D372	8-719-991-33	DIODE 1SS133T-77
D375	8-719-991-33	DIODE 1SS133T-77
D421	8-719-404-46	DIODE MA110
D422	8-719-404-46	DIODE MA110
D423	8-719-404-46	DIODE MA110
D551	8-719-400-20	DIODE MA152WA
D552	8-719-041-79	DIODE MA721WA-TX
D553	8-719-991-33	DIODE 1SS133T-77
D554	8-719-049-26	DIODE RB721Q
D571	8-719-109-93	DIODE RD6.2ESB2
D572	8-719-109-97	DIODE RD6.8ES-B2
D601	8-719-991-33	DIODE 1SS133T-77
D602	8-719-991-33	DIODE 1SS133T-77
D603	8-719-110-49	DIODE RD18ES-B2
D604	8-719-110-06	DIODE RD8.2ESB1
D605	8-719-991-33	DIODE 1SS133T-77
D621	8-719-923-74	DIODE MTZJ-T-77-11A
D743	8-719-404-46	DIODE MA110
D744	8-719-404-46	DIODE MA110

< IC >

Ref. No.	Part No.	Description
IC31	8-759-448-84	IC BU2624F-E2
IC101	8-752-079-79	IC CXA2510AQ-T4
IC301	8-759-443-67	IC LC75373ED
IC401	8-759-063-04	IC IR3R42
IC402	8-759-603-27	IC M5201FP
IC403	8-759-603-27	IC M5201FP
IC571	8-759-449-89	IC BA8270F-E2
IC601	8-759-347-49	IC BA3918-V2
IC651	8-759-395-97	IC MM1322XFBE

MAIN

Ref. No.	Part No.	Description				Remark
IC701	8-759-461-93	IC uPD78058GC-464-3B9				
		< CHIP CONDUCTOR >				
JR1	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JR2	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JR4	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JR5	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JR6	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JR9	1-216-295-00	CONDUCTOR, CHIP	(2012)			
		< COIL >				
L31	1-410-509-11	INDUCTOR	10uH			
L401	1-411-999-11	COIL (VCO)				
L421	1-410-336-11	INDUCTOR	220uH			
L701	1-410-509-11	INDUCTOR	10uH			
		< TRANSISTOR >				
Q1	8-729-209-41	TRANSISTOR	2SC2532-TE85L			
Q32	8-729-106-68	TRANSISTOR	2SD1615A-GP			
Q51	8-729-106-68	TRANSISTOR	2SD1615A-GP			
Q52	8-729-021-94	TRANSISTOR	2SK1657-T1B			
Q171	8-729-920-21	TRANSISTOR	DTC314TKH04			
Q181	8-729-920-21	TRANSISTOR	DTC314TKH04			
Q271	8-729-920-21	TRANSISTOR	DTC314TKH04			
Q281	8-729-920-21	TRANSISTOR	DTC314TKH04			
Q331	8-729-015-11	TRANSISTOR	2SD1802FAST-TL			
Q332	8-729-027-23	TRANSISTOR	DTA114EKA-T146			
Q333	8-729-900-53	TRANSISTOR	DTC114EK			
Q334	8-729-106-60	TRANSISTOR	2SB1115A			
Q335	8-729-900-53	TRANSISTOR	DTC114EK			
Q371	8-729-920-74	TRANSISTOR	2SC2412K-QR			
Q372	8-729-027-23	TRANSISTOR	DTA114EKA-T146			
Q374	8-729-216-22	TRANSISTOR	2SA1162-G			
Q401	8-729-900-53	TRANSISTOR	DTC114EK			
Q420	8-729-920-74	TRANSISTOR	2SC2412K-QR			
Q421	8-729-920-74	TRANSISTOR	2SC2412K-QR			
Q422	8-729-900-53	TRANSISTOR	DTC114EK			
Q423	8-729-027-23	TRANSISTOR	DTA114EKA-T146			
Q551	8-729-027-23	TRANSISTOR	DTA114EKA-T146			
Q552	8-729-027-23	TRANSISTOR	DTA114EKA-T146			
Q601	8-729-920-74	TRANSISTOR	2SC2412K-QR			
Q602	8-729-900-53	TRANSISTOR	DTC114EK			
Q623	8-729-900-53	TRANSISTOR	DTC114EK			
Q624	8-729-027-23	TRANSISTOR	DTA114EKA-T146			
Q625	8-729-030-18	TRANSISTOR	2SD2525			
Q626	8-729-030-18	TRANSISTOR	2SD2525			
		< RESISTOR >				
R1	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R2	1-216-029-00	METAL CHIP	150	5%	1/10W	
R3	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R4	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R5	1-216-041-00	METAL CHIP	470	5%	1/10W	
R6	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R7	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R9	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R20	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R21	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R22	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R31	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R32	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R33	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R34	1-216-206-00	METAL CHIP	2.2K	5%	1/8W	
R35	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R36	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R37	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R38	1-216-214-00	METAL CHIP	4.7K	5%	1/8W	
R51	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R52	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R54	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R121	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R122	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R123	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R124	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R125	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R126	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R127	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R128	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R151	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R171	1-216-033-00	METAL CHIP	220	5%	1/10W	
R172	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R173	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R174	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R175	1-216-278-11	METAL CHIP	2.2M	5%	1/8W	
R181	1-216-033-00	METAL CHIP	220	5%	1/10W	
R182	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R183	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R184	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R185	1-216-278-11	METAL CHIP	2.2M	5%	1/8W	
R221	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R222	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R223	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R224	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R225	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R227	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R251	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R271	1-216-033-00	METAL CHIP	220	5%	1/10W	
R272	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R273	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R274	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R275	1-216-278-11	METAL CHIP	2.2M	5%	1/8W	
R281	1-216-033-00	METAL CHIP	220	5%	1/10W	
R282	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R283	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R284	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R285	1-216-278-11	METAL CHIP	2.2M	5%	1/8W	
R320	1-216-295-00	CONDUCTOR, CHIP		(2012)		
R321	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R322	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R323	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R324	1-216-001-00	METAL CHIP	10	5%	1/10W	
R325	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R326	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R327	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R328	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R330	1-216-049-11	METAL CHIP	1K	5%	1/10W	

Ref. No.	Part No.	Description			Remark
R331	1-216-049-11	METAL CHIP	1K	5%	1/10W
R332	1-249-385-11	CARBON	2.2	5%	1/6W
R333	1-249-385-11	CARBON	2.2	5%	1/6W
R335	1-216-073-00	METAL CHIP	10K	5%	1/10W
R336	1-216-210-00	METAL CHIP	3.3K	5%	1/8W
R371	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R373	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R376	1-216-081-00	METAL CHIP	22K	5%	1/10W
R377	1-216-105-00	METAL CHIP	220K	5%	1/10W
R378	1-216-073-00	METAL CHIP	10K	5%	1/10W
R401	1-216-172-00	METAL CHIP	82	5%	1/8W
R402	1-216-238-00	METAL CHIP	47K	5%	1/8W
R403	1-216-085-00	METAL CHIP	33K	5%	1/10W
R404	1-216-099-00	METAL CHIP	120K	5%	1/10W
R405	1-216-098-00	METAL CHIP	110K	5%	1/10W
R406	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R407	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W
R409	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R410	1-216-076-00	METAL CHIP	13K	5%	1/10W
R411	1-216-049-11	METAL CHIP	1K	5%	1/10W
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W
R413	1-216-073-00	METAL CHIP	10K	5%	1/10W
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W
R421	1-216-073-00	METAL CHIP	10K	5%	1/10W
R422	1-216-093-00	METAL CHIP	68K	5%	1/10W
R423	1-216-041-00	METAL CHIP	470	5%	1/10W
R424	1-216-117-00	METAL CHIP	680K	5%	1/10W
R425	1-216-041-00	METAL CHIP	470	5%	1/10W
R426	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R427	1-216-097-00	METAL CHIP	100K	5%	1/10W
R428	1-216-097-00	METAL CHIP	100K	5%	1/10W
R429	1-216-073-00	METAL CHIP	10K	5%	1/10W
R430	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R432	1-216-075-00	METAL CHIP	12K	5%	1/10W
R433	1-216-077-00	METAL CHIP	15K	5%	1/10W
R434	1-216-097-00	METAL CHIP	100K	5%	1/10W
R435	1-216-097-00	METAL CHIP	100K	5%	1/10W
R436	1-216-073-00	METAL CHIP	10K	5%	1/10W
R437	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R438	1-216-073-00	METAL CHIP	10K	5%	1/10W
R439	1-216-075-00	METAL CHIP	12K	5%	1/10W
R440	1-216-077-00	METAL CHIP	15K	5%	1/10W
R441	1-216-049-11	METAL CHIP	1K	5%	1/10W
R442	1-216-075-00	METAL CHIP	12K	5%	1/10W
R451	1-216-073-00	METAL CHIP	10K	5%	1/10W
R452	1-216-073-00	METAL CHIP	10K	5%	1/10W
R453	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R454	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R551	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R552	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R553	1-216-097-00	METAL CHIP	100K	5%	1/10W
R554	1-216-113-00	METAL CHIP	470K	5%	1/10W
R555	1-216-174-00	METAL CHIP	100	5%	1/8W
R556	1-216-049-11	METAL CHIP	1K	5%	1/10W
R559	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R571	1-249-401-11	CARBON	47	5%	1/4W
R572	1-216-073-00	METAL CHIP	10K	5%	1/10W

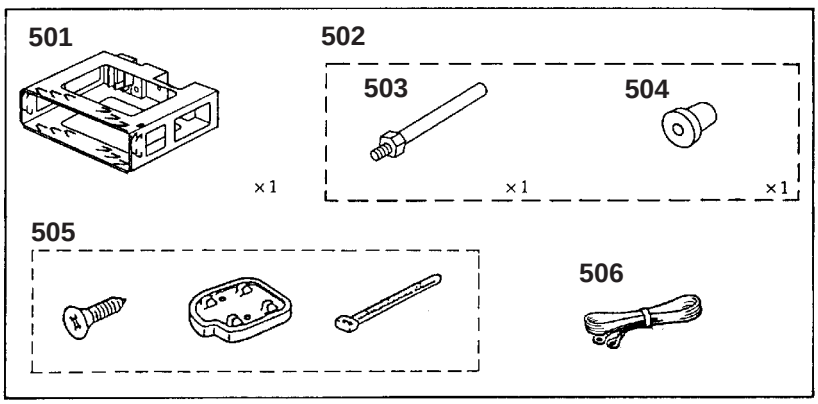
Ref. No.	Part No.	Description			Remark
R601	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R602	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R603	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R604	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R605	1-216-089-00	METAL CHIP	47K	5%	1/10W
R606	1-216-073-00	METAL CHIP	10K	5%	1/10W
R607	1-216-025-00	METAL CHIP	100	5%	1/10W
R608	1-216-025-00	METAL CHIP	100	5%	1/10W
R609	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R623	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R624	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R625	1-216-041-00	METAL CHIP	470	5%	1/10W
R626	1-216-041-00	METAL CHIP	470	5%	1/10W
R629	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R665	1-216-025-00	METAL CHIP	100	5%	1/10W
R666	1-216-025-00	METAL CHIP	100	5%	1/10W
R675	1-216-025-00	METAL CHIP	100	5%	1/10W
R701	1-216-097-00	METAL CHIP	100K	5%	1/10W
R702	1-216-097-00	METAL CHIP	100K	5%	1/10W
R703	1-216-097-00	METAL CHIP	100K	5%	1/10W
R704	1-216-097-00	METAL CHIP	100K	5%	1/10W
R705	1-216-097-00	METAL CHIP	100K	5%	1/10W
R706	1-216-081-00	METAL CHIP	22K	5%	1/10W
R707	1-216-081-00	METAL CHIP	22K	5%	1/10W
R708	1-216-081-00	METAL CHIP	22K	5%	1/10W
R710	1-216-097-00	METAL CHIP	100K	5%	1/10W
R711	1-216-097-00	METAL CHIP	100K	5%	1/10W
R712	1-216-097-00	METAL CHIP	100K	5%	1/10W
R713	1-216-097-00	METAL CHIP	100K	5%	1/10W
R715	1-216-097-00	METAL CHIP	100K	5%	1/10W
R717	1-216-097-00	METAL CHIP	100K	5%	1/10W
R718	1-216-097-00	METAL CHIP	100K	5%	1/10W
R719	1-216-097-00	METAL CHIP	100K	5%	1/10W
R720	1-216-041-00	METAL CHIP	470	5%	1/10W
R721	1-216-093-00	METAL CHIP	68K	5%	1/10W
R722	1-216-222-00	METAL CHIP	10K	5%	1/8W
R723	1-216-049-11	METAL CHIP	1K	5%	1/10W
R724	1-216-041-00	METAL CHIP	470	5%	1/10W
R725	1-216-041-00	METAL CHIP	470	5%	1/10W
R726	1-216-041-00	METAL CHIP	470	5%	1/10W
R727	1-216-049-11	METAL CHIP	1K	5%	1/10W
R728	1-216-049-11	METAL CHIP	1K	5%	1/10W
R729	1-216-049-11	METAL CHIP	1K	5%	1/10W
R730	1-216-049-11	METAL CHIP	1K	5%	1/10W
R732	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R733	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R734	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R735	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R736	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R737	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R738	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R739	1-216-049-11	METAL CHIP	1K	5%	1/10W
R740	1-216-049-11	METAL CHIP	1K	5%	1/10W
R741	1-216-049-11	METAL CHIP	1K	5%	1/10W
R742	1-216-049-11	METAL CHIP	1K	5%	1/10W
R745	1-216-049-11	METAL CHIP	1K	5%	1/10W
R746	1-216-049-11	METAL CHIP	1K	5%	1/10W
R747	1-216-049-11	METAL CHIP	1K	5%	1/10W

MAIN **POWER**

Ref. No.	Part No.	Description				Remark
R748	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R749	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R750	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R752	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R753	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R754	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R755	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R756	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R757	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R758	1-216-049-11	METAL CHIP	1K	5%	1/10W	
		< VARIABLE RESISTOR >				
RV121	1-238-087-11	RES, ADJ, CERMET	1K			
RV221	1-238-087-11	RES, ADJ, CERMET	1K			
RV401	1-238-091-11	RES, ADJ, CERMET	22K			
RV402	1-238-089-11	RES, ADJ, CERMET	4.7K			
		< TUNER >				
TU1	A-3282-031-A	TUNER UNIT TUX-006/2 (EE)				
		< VIBRATOR >				
X11	1-577-126-51	VIBRATOR, CRYSTAL (7.2MHz)				
X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)				
**********						
*	A-3313-059-A	POWER BOARD, COMPLETE				
		**********				
*	3-012-566-01	BRACKET (IC)				
*	3-012-568-01	BRACKET (CONNECTOR)				
*	3-012-569-01	HEAT SINK				
	7-682-548-04	SCREW +P 3X8				
	7-685-792-09	SCREW +PTT 2.6X6 (S)				
	7-685-794-09	SCREW +PTT 2.6X10 (S)				
		< CAPACITOR >				
C176	1-136-165-00	FILM	0.1uF	5%	50V	
C177	1-136-165-00	FILM	0.1uF	5%	50V	
C178	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C186	1-136-165-00	FILM	0.1uF	5%	50V	
C187	1-136-165-00	FILM	0.1uF	5%	50V	
C188	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C276	1-136-165-00	FILM	0.1uF	5%	50V	
C277	1-136-165-00	FILM	0.1uF	5%	50V	
C278	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C286	1-136-165-00	FILM	0.1uF	5%	50V	
C287	1-136-165-00	FILM	0.1uF	5%	50V	
C288	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C451	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C453	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C454	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C455	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C456	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C471	1-113-501-11	ELECT	4700uF	20%	16V	
C472	1-126-157-11	ELECT	10uF	20%	16V	
C473	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C475	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C476	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C478	1-164-232-11	CERAMIC CHIP	0.01uF		50V	

Ref. No.	Part No.	Description				Remark
C479	1-126-157-11	ELECT	10uF	20%	16V	
C480	1-126-157-11	ELECT	10uF	20%	16V	
C481	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V	
C482	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V	
C572	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C602	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C603	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
		< CONNECTOR >				
CN3	1-779-534-11	PIN, CONNECTOR (PC BOARD)				
CNP400	1-770-407-11	CONNECTOR, BOARD TO BOARD 12P				
CNP401	1-770-411-11	CONNECTOR, BOARD TO BOARD 20P				
		< DIODE >				
D471	8-719-049-38	DIODE 1N5404TU				
D472	8-719-109-93	DIODE RD6.2ESB2				
D473	8-719-923-92	DIODE MTZJ-T-77-16B				
D573	8-719-109-93	DIODE RD6.2ESB2				
D574	8-719-109-93	DIODE RD6.2ESB2				
D608	8-719-109-93	DIODE RD6.2ESB2				
D609	8-719-109-93	DIODE RD6.2ESB2				
		< IC >				
IC471	8-759-369-41	IC HA13155				
		< COIL >				
L471	1-411-670-11	COIL, CHOKE	400uH			
		< RESISTOR >				
R176	1-216-134-00	METAL CHIP	2.2	5%	1/8W	
R177	1-216-134-00	METAL CHIP	2.2	5%	1/8W	
R186	1-216-134-00	METAL CHIP	2.2	5%	1/8W	
R187	1-249-385-11	CARBON	2.2	5%	1/6W	
R276	1-249-385-11	CARBON	2.2	5%	1/6W	
R277	1-249-385-11	CARBON	2.2	5%	1/6W	
R286	1-249-385-11	CARBON	2.2	5%	1/6W	
R287	1-249-385-11	CARBON	2.2	5%	1/6W	
R471	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R472	1-216-222-00	METAL CHIP	10K	5%	1/8W	
R475	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R478	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R479	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R573	1-216-025-00	METAL CHIP	100	5%	1/10W	
R574	1-216-025-00	METAL CHIP	100	5%	1/10W	
**********						
		MISCELLANOUS				
		**********				
16	1-782-345-11	CORD (WITH CONNECTOR)				
158	1-660-169-21	REEL BOARD				
F901	1-532-677-00	FUSE, GLASS TUBE (10A)				
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)				
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)				
M902	A-3291-664-A	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)				
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)				
**********						

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#3	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT	
#4	7-682-548-04	SCREW +P 3X8	
#5	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#6	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
#7	7-624-104-04	STOP RING 2.0, TYPE-E	
#8	7-628-253-00	SCREW +PS 2X4	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-473-067-31	REMOTE COMMANDER (RM-X2S)	
	3-859-477-11	MANUAL, INSTRUCTION (ENGLISH, POSISH, BULGARIAN, MAGYAR, RUSSIAN)	
	3-859-475-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, POLISH, BULGARIAN, MAGYAR, RUSSIAN)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	3-012-593-01	BRACKET	
502	X-3366-405-1	SCREW ASSY (EXP), FITTING	
503	3-386-828-01	SCREW, FITTING	
504	3-349-410-01	BUSHING	
505	X-3369-817-1	BRACKET ASSY	
506	1-775-543-11	CORD, GROUND	



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